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# Book of the Orchard, Lawn *and* Garden



ESTABLISHED 1903

HANKINSON NURSERY COMPANY  
HANKINSON, NORTH DAKOTA





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# A New Service from An Old Company

WE take pleasure in presenting this descriptive catalog and handbook to our friends and customers, old and new. We have attempted to make it a worthy supplement to the efforts of the faithful group of men who have represented the Hankinson Nursery Co. in the northwest for twenty-five years—striving to render a complete, helpful service to all lovers of beautiful homes.

The Hankinson Nursery Company had a meager beginning back in 1903, but with the increasing years we have reached a point now where we have one hundred fifty acres devoted exclusively to growing nursery stock. Our entire organization is engaged in the one pursuit of growing and selling hardy, northern grown nursery stock. We are continually carrying on experiments in our nursery with new varieties of fruits, trees, shrubs and flowers. Those which survive our tests come in for distribution, those which fail are immediately discarded. Through this process we have accumulated the list of hardy nursery stock described in this catalog—and which we are proud to recommend to our patrons in the northwest. We have sufficient faith in the stock we sell that *we guarantee to replace it free of charge if it fails to grow the first year.* This guarantee applies to all stock except strawberries, and evergreens sold without ball of dirt and burlap on the roots.

We maintain a complete Service Department at the disposal of our patrons. We are always glad to go over planting problems, pruning, control of plant diseases, insects and all the other questions our patrons may have. Our representatives are all men who have a thorough knowledge of the nursery business—and we urge our friends to avail themselves of the advice and help these men will cheerfully render. In our service department we maintain a complete landscape plan bureau, which is devoted to laying out grounds, preparing plans, and supplying and planting the stock called for on the plans. All this landscape service is given for just a nominal cost above that of the stock used. We feel that the nursery business demands a personal service—and we are adequately prepared to render it.

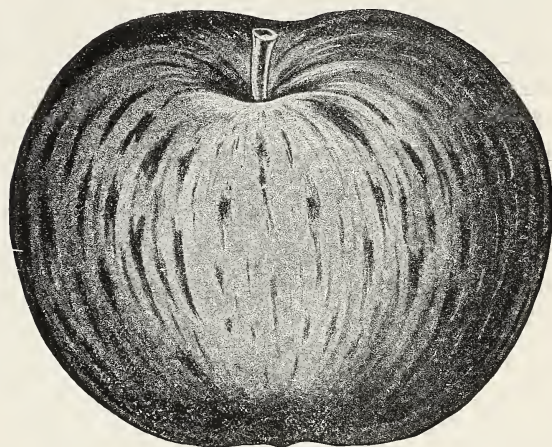
We hope that our efforts in preparing this book meet with your approval—and that we may continue to merit your patronage by supplying you with first class, hardy, northern grown nursery stock, and a service that will win us your lasting good will.

# Fruit Department

## Apples

**T**HE apple is the first in importance of all fruits. It will thrive on nearly any well drained soil. Its period of ripening, unlike other fruits, extends nearly through the whole season. By making careful selection, a constant succession can be obtained. For family use there is no fruit that is more indispensable. No fruit is so healthful and many physicians say that if a person would eat an apple a day they could dispense with doctor bills. Besides this, and just as important, is the fact that the average price on the market is steadily increasing and the immense demand for home consumption, foreign shipping, canning and evaporating assures high prices. The apple if given the same care and attention as other farm crops, will yield greater returns per acre. The following list we consider to be the best for general planting.

### Early Summer Varieties



Duchess

**DUCHESS OF OLDENBURG**—Season, July and August. Tree upright, vigorous and extremely hardy. An early and annual bearer of uniformly large crops. Fruit large, greenish yellow, with red stripes. Flesh light yellow, medium fine grain, firm; flavor a pleasant acid; a great cooking and fine market sort.

**ERICKSON**—The claim is made for Erickson that it is the largest red apple on exhibition at the Minnesota State Fair during the years that it has been exhibited there. This variety was originated near Aitkin, in northern Minnesota and has shown promise of extreme hardiness. It is a vigorous grower, producing a large, strongly branched tree which bears early. The apples are large, bright red and hold well onto the tree. It is of special prominence for the northern sections. Season early.

**FOLWELL**—Folwell is another product of the State Fruit Breeding Farm, and has been called a fruit of great promise. The tree is of large, vigorous and spreading growth, somewhat similar to Hibernial and has been regularly productive and thoroughly hardy. The fruit is large, with a greenish yellow ground, covered with a

heavy blush. Quality very good. Season similar to Wealthy.

**REDWING**—Color, rich red; medium in size; very juicy. Sub-acid. An apple that you will want to have in your orchard.

**HARALSON—Red—Hardy—A Keeper**—At last we have a real winter apple for the Northwest. Haralson is Minnesota's only hardy, high quality, red, winter, eating apple that will keep until late spring in ordinary storage. It has been correctly called the Northwest's best winter apple.

The tree is an up-right grower with a strong, wide angle crotch and branching system. It is a vigorous tree, very productive and resistant to Fire Blight. The fruit is about the size of Wealthy, is borne at an early age and hangs onto the tree until picked. The fruit is an attractive red in color and very good in quality. Entirely hardy. No home or commercial orchard is complete without Haralson. Season January to April.



Redwing



## Mid-Summer and Fall Varieties



Anisim

**ANISIM**—A most valuable sort from Russia. Fruit of medium size, excellent flavor, and keeps a long time in good condition. November to January.

**ANOKA**—The wonder apple of this generation. Forms fruit-buds on one year-old wood, so that a one year-old tree will bear fruit the second year after planting, and keep it up every year. Anoka is similar to Duchess, but better. The juicy, sub-acid flesh has a peculiar characteristic flavor that pleases everybody. The fruit ripens early. Anoka remains small in size, thereby making it possible to plant more trees to the acre, and making the trees more easy to spray.

**HIBERNAL**—The hardiest standard apple known. Thrives in all parts of the state, especially valuable as a stock for top-working. Long lived; branches are unusually strong; a heavy annual bearer. Cooking apple. Season, September to November.

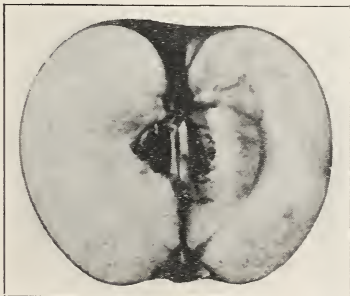
**MALINDA**—Medium to large; rich yellow, with dull bluish; white dots; flesh yellowish white, sub-acid, crisp and juicy. Splendid for cooking. Valuable for long keeping qualities.

**PATTEN'S GREENING**—A seedling of Duchess and equal to it in hardiness and productiveness. Fruit large, uniform size, pleasant, acid, equally good for eating or cooking. One of the best for the Northwest. November to January.

**WEALTHY**—Is now extensively planted in all the apple-growing states and may be termed the best apple of its season. Fruit large, regular, smooth, light yellow with crimson stripes and splashes; flesh white, often stained with red, tender, very juicy, sprightly sub-acid with delicious aroma. Splendid dessert and cooking apple. Fine for home garden as well as commercial orchards. Season, September to January.



Malinda



Anoka  
Less Than One-half Natural Size



Showing Sizes of Trees—5-6 ft., 4-5 ft., 3-4 ft.



# Crab Apples

**W**ITHIN the past few years a good many people have paid much attention to improving this fruit. Their efforts have been attended with marked success. Crab apples succeed equally well in all sections and are valuable for cider, preserving and jellies, and some of the improved sorts are excellent for eating. Every orchard should contain a few, as the trees are handsome, annual bearers, and usually fruit the second year.

They are very hardy and bear young and abundantly. The fruit makes the finest cider known. Plant and cultivate same as an apple.

**FLORENCE**—A hardy, spreading tree; bears young and inclined to overbear. Fruit medium; color carmine when well colored; flesh yellowish, medium, fine, acid; excellent for cooking; a fine jelly crab, and valuable for early market, as well as home use. August.

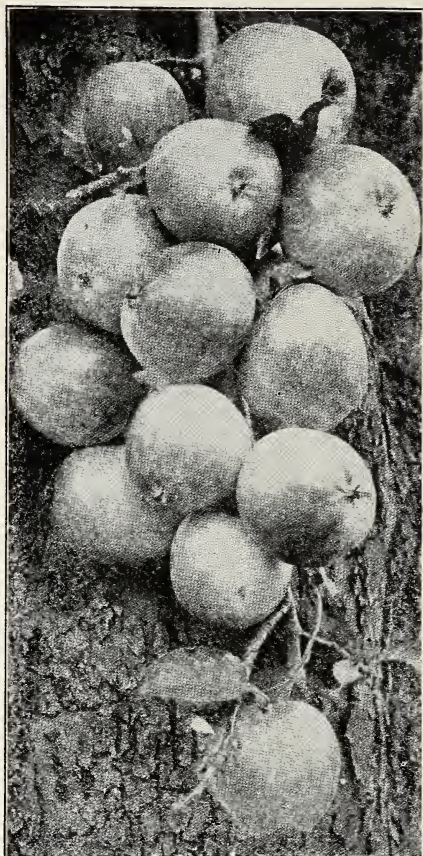
**HYSLOP**—Season, September to October. Tree vigorous where hardy; blights in some localities. Fruit medium; yellow ground with heavy shadings of deep crimson and splashes of maroon with heavy blue bloom; flesh fine, firm, yellow, astringent; bears abundantly in clusters, which make tree exceedingly ornamental. Its high color always commands a fancy market price for it. One of the most desirable sorts for culinary purposes.

**MINNESOTA**—A good eating and cooking crab apple—yellow with blush, large size, season, October. A fine pickling crab.

**TRANSCENDENT**—Season, September. Fruit medium to large; color brownish-yellow with blush of carmine; flesh firm and crisp, yellowish, fine grained, very juicy, acid. Tree is a vigorous grower. Hardy. Subject to blight and should not be planted near other orchard trees.

**WHITNEY**—Season, August. Fruit large to very large for a hybrid; yellow, striped with red and mostly covered with red on sunny side; flesh yellow, very juicy and fine grained; flavor rich and almost sweet.

**VIRGINIA**—Golden yellow, flesh white. Mildly sub-acid in flavor. Round and medium in size. Ripens in September.



Virginia



Whitney

Wealthy

**DOLGO CRAB**—A new, Red-Jellied Siberian Crab—Professor Hansen of the State Agricultural Farm, Brookings, South Dakota, writes as follows: "At the annual exhibits of this Department, at the South Dakota State Fair, many have asked about the remarkably long, conical, intensely bright red crabs we used for making letters. This is one I brought over from my second trip to Russia in 1897. A vigorous, productive tree and so far free from blight. Fruit full of juice, jells easily, makes a rich ruby red jelly, of beautiful color and excellent flavor."

It bears profusely, the most beautiful crab apples I have ever seen. They are really excellent for jelly, which is about as red as jelly made from currants, and of very fine flavor. The tree is very hardy, a strong, thrifty grower and so far has never blighted in our experience.

## Pears

**T**HE Pear very justly ranks as one of the most delicious of fruits, by reason of its fine, juicy texture and exquisite flavor and aroma. Of late years much attention has been given to its culture, and those who have intelligently cultivated it for market have found it to be a profitable occupation.

The soil most congenial to this fruit is a strong clay loam, but it will succeed in any good soil, provided it is moderately rich and dry. A soil saturated with stagnant moisture for a large portion of the year is totally unfit for this purpose. The usual distance for planting is about twenty-five feet each way, but if the soil is very strong, twenty feet is sufficient.

Early and Autumn Pears should be picked ten days before fully ripe and allowed to ripen in the house. This greatly improves the flavor of all kinds, while some are nearly worthless if allowed to ripen on the tree.

**MINNESOTA NO. 1**—This high quality cooking and eating pear has been heralded by horticultural authorities, as being the most promising and most satisfactory pear at present known for growing in Minnesota and adjacent territory. Minnesota No. 1 was grown from some seed brought from Manchuria in 1909 and planted at the Fruit Breeding Farm. The tree is a large vigorous free-growing type, but not hardy enough for northern parts of the state. The fruit is medium to large, the flesh tender, almost melting and the quality very good. The color is a yellow overlaid with a distinct blush. Season late September. We offer strong one year trees.



Mendel

**MENDEL**—Grown from a seed planted 23 years ago at New Ulm, Minnesota. The original tree has stood in an exposed place all these years and has shown no winter injury and, although, surrounded by many other pears which blighted badly, has never shown a trace of blight. Trees of this variety have withstood forty-five degrees below zero without injury. The flowers are self-pollenizing. The tree is a strong, vigorous grower. The fruit hangs well to the tree, is of fine quality and an excellent keeper.

The originator describes the fruit as follows: "The fruits of the Mendel are fully as large as that of the Bartlett Pear. The fruit hangs well to the tree, is of excellent quality, sweet and juicy and keeps well into November."



Minnesota No. 1



# Plums

**T**HE plum like the pear and other finer fruits, succeeds best in heavy soil with some clay and being almost entirely free from disease, they can be grown very profitably.

Of late years the demand for plums has increased very rapidly. The finer kinds are excellent dessert fruits, of rich and luscious flavor; for cooking and canning they are unsurpassed. For home consumption they should be gathered a few days earlier. Some of the varieties are inclined to overbear and should be thinned in order to produce perfect fruit. Most all the varieties, especially the native sorts, are extremely hardy and resist the most severe weather.

## Native Plums

**GOLDEN ROD**—This is the best clear yellow plum of the varieties originated at the Minnesota fruit breeding farm, when firmness of flesh and size is considered. It is of good quality, ripens rather late and bears profusely. Can be shipped long distances as flesh is very firm.

**KAHINTA**—Originated by Dr. N. E. Hansen, of South Dakota. Generally recognized as the best of the large fruited South Dakota hybrids. Its parentage is the same as Waneta, and it is similar to that variety except that it averages larger in size of fruit. Tall, upright, vigorous tree.

Fruit is very large; on young trees attaining to over two inches in diameter and two ounces in weight. It is thin skinned, and delicious to eat, dark red; free stone. Likewise valuable in nearby markets.

**LaCRESCENT**—(Shiro x Howard Yellow)—Tree extremely vigorous, very large, upright, oval head, medium to heavily productive. Fruit medium in size, slightly oval, clear yellow, sometimes with delicate blush. Very tender, fine grained flesh; juicy and sweet; of highest quality. Stone medium in size, semi-free. Season very early. High dessert and cooking quality and therefore especially adapted to home use.

**LORING**—A chance seedling, and one of the first hybrid plums originated in Minnesota, although not at the State Fruit Breeding Farm. Probably a cross between some native and Japanese varieties. Tree is tall and spreading, vigorous grower and hardy. Comes into bearing rather more slowly than the other crosses. The fruit is extra fine.

**MONITOR**—(Triflora x Americana)—Tree medium in size but vigorous, and produces a compact, rounded, well shaped head. Hardy and productive. Fruit large, roundish, well colored with dark, dull red. Flesh firm, moderately juicy, sweet. Quality, fair to good. Stone medium size, cling. Late mid-season. It is



Loring Prize

one of the most promising varieties for market growing.

**RADISSON**—This exceptionally early and delicious plum from the Minnesota Fruit Breeding Station once again has shown itself to be one of the hardiest and most satisfactory for the Northwest. The size is fairly large and the quality is unsurpassed. Fruit is a handsome red.

**WINONA**—(Minn. No. 30)—Tree a vigorous grower; top spreading and compact; requires very little pruning; hardy and a regular bearer. Fruit large, yellow background, turning red when ripe; roundish; pit semi-cling; tough skin; juicy, sweet; quality very good. Ripe about September 1st. The high quality of this plum and its firm, meaty flesh especially recommend it as a market variety.

**UNDERWOOD**—Underwood is probably the one best variety of Plums for general growing, both in the home orchard and in the commercial planting. The fruit is large, of an attractive red color, with a firm, juicy, golden yellow flesh. The small stone is semi-free. The fruit ripens over a long period and hangs well onto the tree. The season is early, usually commencing late in July and giving about two weeks of picking. The earliness of the season coupled with the fact that it is one of the hardiest of the new hybrids makes it especially valuable in the northern latitudes.



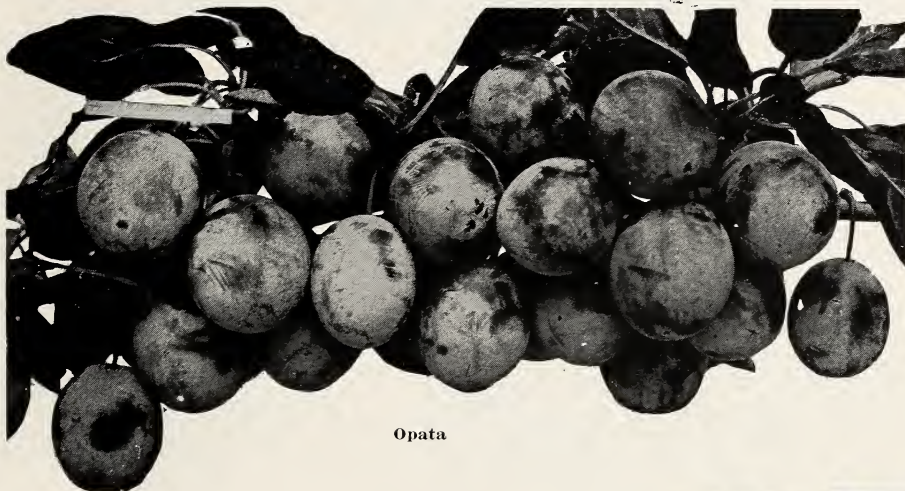
## Get Out of the Rut

Plums set 17 ft. by 18 ft. require 140 trees per acre. These produce some fruit in three years, in four years yield 70 bushels per acre. The California plums are selling at wholesale at \$3.00 to \$5.50 per bushel. To be conservative we will figure them at only \$3.00 per bushel, which gives an income of \$210.00 an acre the fourth year, and the yield is greater when the trees grow to full size. Such crops as potatoes or garden truck can be grown between the rows of fruit trees until they come into bearing, thus paying for the cultivation.

The California plums shipped north must be picked green, so when they reach us they lack flavor, yet they find ready sale at very profitable prices. Waneta, Underwood, Monitor, and other plums originated at the Fruit Breeding Farm are as large as the California fruit, and being ripened here on the trees are of superior flavor, so will sell more readily.

YOU can grow plums right here close to the great consuming market of the middle northwest, and you will get a greater net return for your fruit than does the California grower, because a big part of their \$5.00 per bushel goes for freight and express. As rapidly as we get to producing these big plums of better quality here in the north they will displace that much California fruit.

## The Cherry-Plum Hybrids

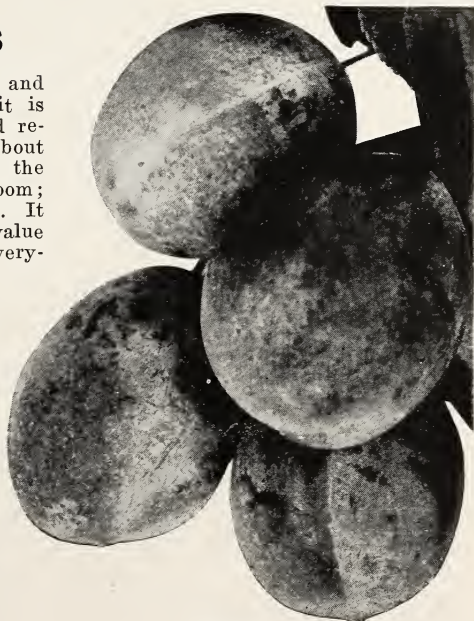


Opata

## Hansen Hybrid Plums

**HANSKA** — This is a cross between the native Plum and the fine fragrant Apricot Plum of China. The fruit is splendid for eating out of the hand, and when cooked retains the Apricot flavor. The size of the fruit is about one and one-half inches in diameter. The color of the fruit when ripe is bright red, with a heavy blue bloom; flesh is firm, yellow, good quality and very fragrant. It begins to bear the second year, ripens in August. Its value for preserves will make it popular and desirable everywhere. There is a tremendous demand for this variety, and we have been unable to meet the demand to date.

**OPATA**—One-year-old trees set fruit buds freely. No. 1 trees transplanted will bear the next year. This variety is a cross between the Sand Cherry and the Gold Plum, a very large plum, for which \$3,000 was paid when first introduced. The tree resembles the plum in its habit of growth. The fruit is one inch or more in diameter; small pit. It is a dark purplish red, with blue bloom, flesh is green and firm; flavor pleasant, partakes of the rich sweetness of the Gold Plum. It is excellent for eating out of the hand as well as for table and cooking purposes. Bears as early as the first week in August. This is greatly in its favor, as at that season there is very little fruit of any kind. Tree hardy and a great bearer certainly makes it popular wherever planted.



Hanska

## Hansen Hybrid Plums—Continued



Sapa

**SAPA** — Introduced in 1908.

Fruit has a glossy, dark purple, thin skin, rich dark purple red flesh of the Sultan Plum. On account of its fine flavor and rich coloring Sapa has headed the list of these Hybrids in popularity. Excellent eating out of the hand, and makes the most delicious, rich, sweet, deep wine colored sauce. It is a wonderfully early and prolific bearer. Specimens grown in Minnesota on one-year-old trees in the year 1909 took first prize as a seedling plum at the Minnesota State Fair of that year. Fruits are borne in clusters around the branches, and three-year-old trees have borne as high as one and one-half bushels. Tree is spreading and handsome in appearance.

**WANETA**—This wonderful big new Plum is the latest of Professor Hansen's productions, and gives the northern orchardist his first opportunity to compete with California in growing large market

plums. The following is Professor Hansen's description: "My belief is that in this variety I have combined the best points of the native and Japanese Plum. It is the largest of 10,000 seedlings. In size it is two inches in diameter and weighs two ounces. The female parent is the apple plum, a large Japanese variety. The male parent is the Terry, the largest of the native varieties. We regard this as the most promising plum that has been offered to our planters since the settlement of the country. All the reports coming in from those who have tried it describe the Waneta as bearing early and producing the largest fruit that has been raised in their locality."

## Other Cherry-Plum Hybrids

**COMPASS**—This is the first of the cherry-plum hybrids. It was a chance seedling originated in Minnesota many years ago and attracted immediate attention. Thousands of them have been planted all over the prairie states. Like the other cherry-plum hybrids it was a cross between the Sand Cherry and some one of the Americana plums. Compass is a very hardy tree and fruits successfully under the most severe conditions. It bears young and is very prolific. Fruit is medium size, turning to dark reddish-purple when fully ripe. It is a good pollenizer for the other cherry-plum hybrids.

**ZUMBRA**—A unique product of the Minnesota Fruit Breeding Farm. Different from the other cherry-plum hybrids in that it combines three different strains. Namely, the deep black cherry of commerce, the hardy Minnesota pin cherry, and the Dakota Sand Cherry. In this cross Zumbra has united the size and somewhat of the flavor of the sweet black cherry, with the hardness of the two native fruits. Like the other cherry-plum hybrids Zumbra is an early fruiter, bearing well the second year after planting and frequently considerable fruit the first year. The tree is a strong, upright grower similar to Opatá. Fruit is very dark, nearly black when ripe. Flesh firm, sometimes tinged with red when fully mature. Stone is very small and nearly free. The cherry flavor is very noticeable eaten from the tree when ripe or when cooked. Ripens in August.



Waneta



# Small Fruits

## Cherries

There are few more desirable fruits than the cherry. They are being planted more and more each year and there is always a brisk demand on the market for good fruit.

Cherries thrive in most any dry or well-drained soil. The fruit is delicious whether eaten out of hand or preserved. No home garden is complete without a few cherry trees.

### CULTURAL DIRECTIONS

Standard Cherries should be planted twenty feet apart. The soil best adapted to the Cherry is a light loam on a gravelly or sandy subsoil, though it will do well in almost any situation not too wet. To insure a good growth, Cherries should be well cut back for several successive seasons.

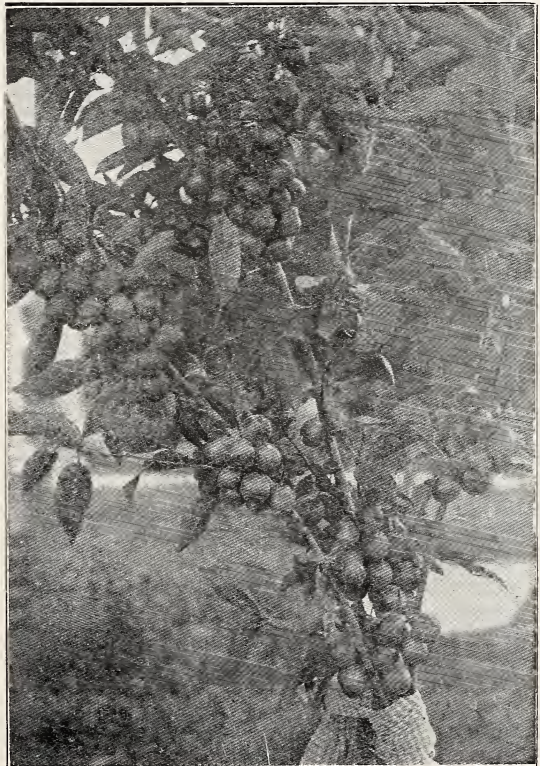


Nicollet

**ST. ANTHONY, The "Royal Purple" of Cooking Cherries**—The St. Anthony is somewhat similar to the Sapa, but is more attractively colored, and seems to be a far better and longer-lived tree. It is especially fine for culinary purposes and the cooked fruit is equal or superior to that of Sapa, having a rich, purplish-red color and delightful flavor. The St. Anthony produces a vigorous tree, half-way in size between the Plums and the dwarf Zumbra and Nicollet Cherry trees. The fruit is of good size for a cherry Hybrid, purplish red in color with a dark rich red juicy flesh of fine grain, and tender texture. Stone semi-free. St. Anthony is easily the best small sized purple fleshed fruit of the Cherry plum crosses. Midseason. Prices for St. Anthony same as for Zumbra.

**NICOLLET**—Probably the most valuable of any of the Cherry-Plum Hybrids produced by the Minnesota State Fruit Breeding Farm. In describing this variety Prof. W. H. Alderman says: "Nicollet is the nearest approach to the true sour cherry that has been produced by the Minnesota station. The small red fruits closely approximate the cherry in size, color, and general appearance. The pit is typically cherrylike, and may be squeezed from the flesh. The flavor and quality are such that the fruit may be used for sauce or pies, and be almost indistinguishable from the true sour cherry."

The tree is a dwarf, bush like, hardy sort and finely branched. The color is a dull cherry red with a greenish yellow flesh. It is desirable to plant Zumbra near it for pollination. Nicollet should be grown in all home gardens or commercial plantings, for it is a heavy producer of attractable fruits which are the equal of any sour cherry for cooking purposes.



Zumbra—Cherry-Plum Hybrid

**PYRUS ARBUTIFOLIA (Choke Cherry)**.—A tall-growing shrub with clusters of small white flowers followed in August by bright red berries that hang until winter. Bright crimson autumn foliage.



## Currants

The Currant is one of the most valuable of small fruits. They mature just before raspberries and can be used either raw or cooked. Being very hardy, they do not winter kill and are easy of cultivation, requiring little care. They can be grown in any good garden soil.

Currants should be planted four feet apart. The Currant flourishes in almost any kind of soil, but to have the fruit in perfection, plant in rich, deep soil, and give good annual pruning and cultivation.

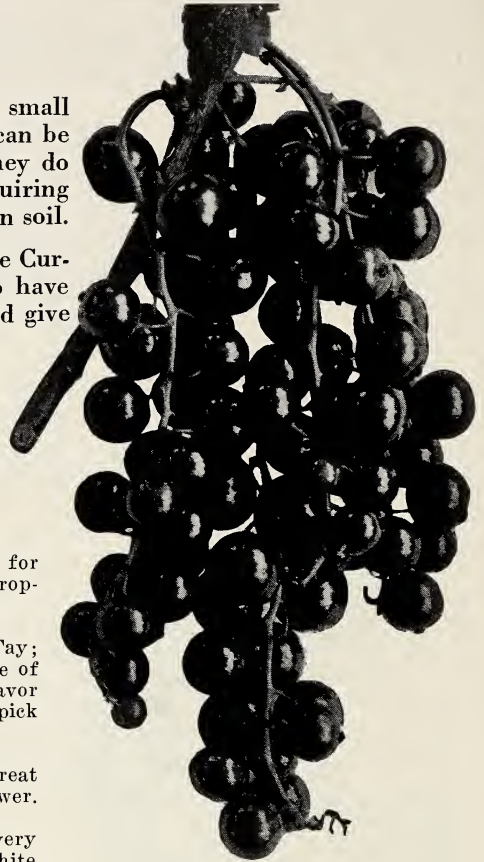
**CHERRY**—The largest of all red currants; berries sometimes more than one-half inch in diameter; bunches short; plant very vigorous and productive when grown on good soil and well cultivated.

**FAY'S PROLIFIC**—For size, beauty and productiveness it is a remarkable red currant. The berry is equal to cherry currant, while the flavor is superior. The stem is long, which permits rapid picking, valuable for both market and home. Fruit hangs on well, never dropping, as in other currants.

**PERFECTION**—Bright red, and of a size larger than the Fay; size of berries is maintained to end of bunch. It is one of the most productive currants. Rich, mild, sub-acid flavor and having plenty of pulp with few seeds. You can pick Perfections fast as cherries.

**RED DUTCH**—Old, well-known sort of good quality, great bearer. Fine market variety. Vigorous and upright grower.

**WHITE GRAPE**—Very large, yellowish white; sweet, or very mild acid; excellent for the table. The finest of the white sorts, very productive.

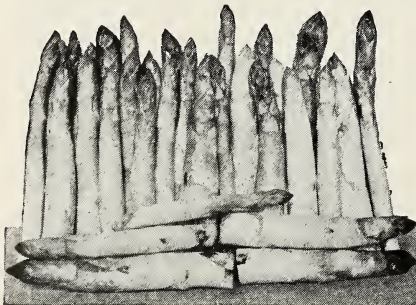


Cherry Currant

## Asparagus

This excellent and finest of spring vegetables is among the easiest cultivated and most profitable. A bed once planted suffers no deterioration for thirty years or more, if it is properly attended to and well manured.

See that the ground is well drained, naturally or otherwise, work it up fine and deep and make it very rich with well-rotted barnyard manure. Place the plants twelve to eighteen inches apart in rows four feet apart. Spread out the roots in a trench made deep enough to permit their crowns to be covered with three or four inches of mellow earth. Give the bed liberal dressings of manure at intervals, and, except near the seashore, three pounds of salt per square yard early every spring. Do not cut for use until the second season.



Martha Washington

**MARTHA WASHINGTON**—No garden is complete without asparagus, and a better variety than Washington Rust-Proof would be hard to select. Rust proof, stalky, light green, tender stems all go to make this asparagus the favorite of the garden. Nice succulent stalks from early spring till late into the summer or all summer long if properly mulched and cut.

### NUMBER OF PLANTS TO THE ACRE

12 inches by 4 feet.....	10,890
15 inches by 4 feet.....	8,712
18 inches by 4 feet.....	7,260

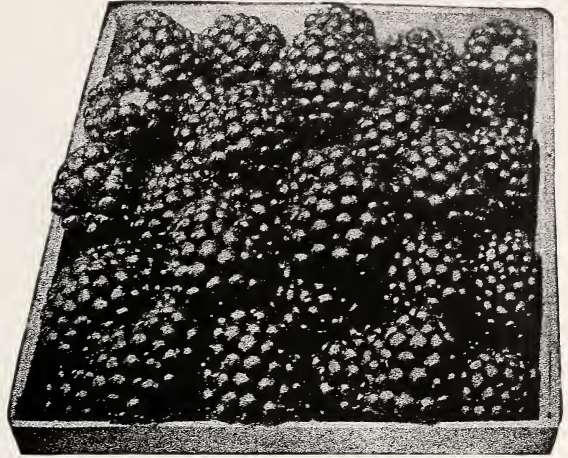
**CONOVER'S COLOSSAL**—This variety is much superior in size and quality to any of the old common sorts, being remarkably tender and fine-flavored. The large green shoots, one to two inches in diameter, are sent up thickly from the crowns, making it a very profitable variety.

# Blackberries

Blackberries are among the best-known and most valued of our berries. No fruit of any kind is more wholesome. A liberal use of berries and other good fruits will save doctor bills. Blackberries should be planted in rows six or seven feet apart, three to four feet in the row. Keep the ground light, rich and clean, and pinch the canes back when they have reached four feet in height. The demand for blackberries is always good.

**ANCIENT BRITON**—A reliable market variety of medium size, and of best quality. One of the hardiest. Berries large and sweet. Sells well on the market and is very profitable. It is one of the best known and most planted varieties in the North Central States.

**SNYDER**—The hardiest blackberry known; fruit medium sized and of great quality; a standard market variety.



Ancient Briton

# Dewberries

The Dewberry is a dwarf and trailing form of the Blackberry. The fruit is highly prized as a market fruit owing to its large size and fine quality. Set the plants two feet apart in the row and cover in winter with coarse litter. Should be mulched in the spring to keep them off the ground.

**LUCRETIA**—Perfectly hardy and remarkably productive; said to be the best of this class of fruit; ripens early, is often one and one-half inches long by one inch in diameter, sweet, luscious and melting, this variety is recommended most highly.



Dewberries

# Raspberries

The Raspberry is one of the most delicious and popular fruits grown. They are always in demand in season and command good prices on the market. For canning purposes they are unexcelled. They are easily cultivated and require little care.

## CULTURE OF RASPBERRIES

Should be planted four feet apart each way or rows five feet apart and three feet apart in row and in a deep soil—one that will retain moisture well in drouth. In training allow only a few canes to grow from each plant, cutting away all suckers to throw the strength into the stalk for bearing; all old canes should be removed immediately after the fruit is all picked. Cut out the old and weak shoots each year. For winter protection, bend the canes over and cover with straw or leaves and remove early in the spring.



Older  
See next page



## Raspberries—Continued



Sunbeam

**LATHAM**—Although this is a comparatively new variety it is entirely past the experimental stage, and we unhesitatingly recommend Latham as one of the very best Red Raspberries ever grown. This variety originated at the Minnesota State Fruit Breeding Farm and is being grown extensively in Minnesota, the Dakotas, also in Canada, and has never been known to winterkill, even though exposed to 45 degrees below zero. Latham is a tall, vigorous grower, canes extra heavy, foliage dark green, entirely free from disease. Ripens with Cuthbert and is enormously productive. Berries much larger than any other Red Raspberry, many of them one inch in diameter. Color good, quality of the best, full Raspberry flavor. Excellent for shipping or home use.

**GREGG**—(Leading Black Cap)—Popular market sort; canes of strong, vigorous growth, and under good culture very productive; berries are large, covered with heavy bloom, firm, meaty and of fine flavor. It requires a good strong soil to produce best results; it is not entirely hardy, but suffers during unusually severe winters; it is by far the best Black Cap and the largest of any.

**OHTA RASPBERRY**—The name, meaning much or many in the Sioux language surely describes the nature of Ohta's bearing habit. Ohta is very hardy far north. The fruit is a beautiful red, fairly firm, and of good quality. It is a good market berry if not shipped too far. Ohta makes good clear jelly and holds its shape well in preserving.

**OLDER**—Black, hardy and reliable. Fruit of large size, sweet and with the smallest proportion of seed pulp of all the black caps we have ever tried. This is by far the most reliable fruiter of its class, and is also a berry of choicest quality, a rare combination. Does not spread by suckering.

**KING**—Very hardy, thrifty and productive. Berries are large, bright red, firm and of good quality. The best early variety and one that is giving general satisfaction for home use or market.

**ST. REGIS EVERBEARING (Red)**—The new everbearing variety. It gives a crop of fruit all summer and autumn fruiting on the old canes in generous quantities until late in August. By this date berries begin to ripen on the young canes and continue until late in autumn. Berries are a bright crimson of large size and of surprising quality, sugary with full raspberry flavor. It succeeds upon all soils, whether light and sandy or cold heavy clay and the canes are absolutely hardy.

**SUNBEAM (Red)**—First sent out, spring, 1906. Female parent a wild red raspberry, from Cavalier County, North Dakota, near the Manitoba line. Male parent, Shaffer's Colossal from New York. Fruit of fair size and quality. Worthy of trial where raspberries winterkill, as it has endured 41 degrees below zero without protection.



# Gooseberries

The Gooseberry requires a deep soil, well manured, and, if inclined to be dry should be mulched to retain the moisture. The bushes should be thoroughly trimmed and pruned to obtain large, fine fruit.



**CARRIE**—Originated in Minnesota. Fruit red. After the third year, bush loses its thorns; very heavy bearer, medium size; excellent quality.



**Downing**



**LaGrand**

**Oregon Champion**

**OREGON CHAMPION**—Berries medium, round, smooth, greenish-white with thin transparent skin; good quality and ripens early; bush vigorous and very free from mildew.

**DOWNING** — Fruit large, round, light green with distinct veins, soft, juicy and fine flavored; vigorous and productive; smooth skin; one of the best.

**HOUGHTON**—Medium size, pale red, sweet and juicy; vigorous grower, abundant bearer and free from mildew. Considered by many the best paying sort in cultivation.

**PEARL**—An exceedingly prolific variety that has been well tested and ranks No. 1 in healthfulness and productiveness. Same color as Downing; seems to possess all the good points of that variety. Valuable for home use and market.

## Rhubarb or Pie Plant

This very desirable vegetable comes early in the spring. The large stems of the leaves are used for pie-making and stewing. It is also valuable for medicinal purposes. A deep, rich soil is indispensable to secure large, heavy stalks. Plant in rows four feet apart, with the plants three feet distant. Set so that the crowns are about one inch below the surface. Top dress in the fall with stable manure and fork under in the spring.

**La GRAND**—This is the most prolific variety we have seen. Stalks are extra large, 15 to 30 inches long and full 2 inches thick. Tender, juicy and excellent for preserving.

**MYATT'S LINNAEUS**—Those who have never grown this variety which is of superior quality, will hardly recognize the old "Pie Plant". It is an early, tender variety, without being in the least tough or stringy with a mild sub-acid flavor.

# Grapes

**EVERYONE** should have a few grape vines in the home garden. They require very little cultivation and the returns are so abundant. If proper selection of varieties is made, one may have grapes on the table for several months in the year. They can be trained over fences, trellises, or doorways and thus be ornamental as well as useful. To grow for market, they can be planted on hillsides that are unsuitable for other crops. They should in all cases have a free exposure to the sun and air.

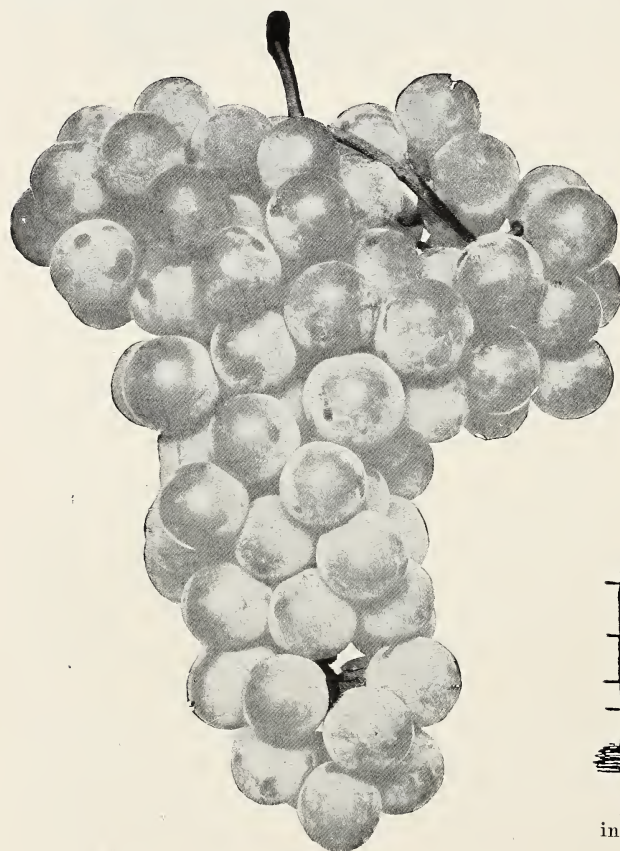
**ALPHA**—A more recent production than Beta and preferred to it by many of those who have grown it. Originated near St. Cloud, Minnesota. Equal to Beta in hardiness and yield. The introducers of Alpha claim for it a much higher quality than that of Beta. It is worthy of extensive cultivation.

**BETA**—Originated by the Minnesota Station, being a cross between the wild grape and Moore's Early. The berry is large, but quite acid, and not so good for eating as many of the others, but for pies, jelly, wine, or grape juice, it is fine. Perfectly hardy, requiring no attention during the winter.

**CAMPBELL'S EARLY**—A fine species. Clusters large, compact and handsome; berries large, nearly round; black with light purple bloom; flesh firm, but tender; the seeds are few; quality rich, sweet, slightly vinous; a strong and vigorous grower with healthy foliage; it ripens very early; the berries do not drop easily from the clusters, and the fruit keeps a long time in perfection.

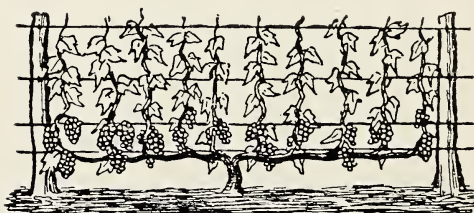


Beta



Hungarian

**HUNGARIAN**—Another excellent hardy grape first introduced by us. An early ripening sort, without the foxy flavor of the wild grape. Good size, sweet to the taste, compact bunch and vigorous as well as perfectly hardy without covering. Not as thrifty grower as Beta, but more productive and of better quality. An ideal commercial grape for this section.



As the vine grows train to trellis as shown in illustration.



# Strawberries

Few fruits offer greater returns for land and labor invested than strawberries. With little care and attention they thrive in most any soil, while extra efforts and cultivation will be rewarded by especially fine crops. Whether you grow for market or home use only, have the best sorts by all means. Below and on the next page we list the cream of all for this part of the country.



Senator Dunlap

## CULTURE OF STRAWBERRIES

The ground should be prepared the same as for the other crops; if not already rich, make it so by manuring. Mark out the rows the desired width and set plants twelve to seventeen inches in rows; if set twelve inches in rows four feet apart, an acre will require 10,890 plants—same as if sixteen inches in rows three feet apart. Keep in rows and cultivate. A new bed should be planted every two or three years. In the early winter, when the ground is frozen, cover the whole with long straw, which should be partially removed from the row in the spring, but enough allowed to remain on the ground as mulch to keep the berries clean the following summer. When the plants are moved in the fall, they should be left until September.

## Spring Bearing Varieties

**PREMIER (P)**—This is the most popular early strawberry of the day. The berries are very large, long pointed, light red in color and present a good appearance in the basket and in market. It produces such a quantity, that growers are simply carried away with it; no other early strawberry is anything near equal to it in productiveness. It is rather light colored for canning but for home use and near market, no other early strawberry can anywhere compete with it. The plants are light

green in color and the true variety may be identified by a slight upward curl of the leaves.

**SENATOR DUNLAP**—This berry is of the Warfield type, has a perfect blossom, is hardy, productive, a splendid keeper and able to hold its own under any "rough and tumble" methods of culture to which it is likely to be subjected. It is a very heavy bearer of good size, even fruit of a very beautiful dark red color. It is a berry to grow for either home use or market.

## Everbearing Varieties

**DULUTH**—Duluth was first produced as Minnesota No. 107, by the State Fruit Breeding Farm. It is especially adapted to the northern part of the state, to heavy soils and to peat or muck soils, is a vigorous grower and yields a heavy crop of attractive, dark red berries in the spring as well as in the fall. It is a good canner. The berries average much larger in size than Progressive, but are not as well adapted to all types of soils.

**MASTODON**—So-called because it is a veritable mastodon in size. Considered by many the most promising everbearing yet produced. The berries are large, attractive, of fine quality, and good market berries. Plants strong and vigorous. Produce runners better than most everbearing varieties. The first fall crop, the year of planting, is very large, and the following spring crop is as heavy as most June berries.



Progressive Everbearing Strawberries

**PROGRESSIVE**—The one best Everbearing for general use, being adapted to all types of soils. Prolific and high quality, yields two crops each year. Plants set this spring should bear this summer and fall. The Universal Strawberry—does well everywhere and needed everywhere.

# June Berries, Sand Cherries, Etc.

**BUFFALO BERRY** (*Shepherdia argentea*)—Stout, thick branches, with a profusion of spurs, and thickly covered with foliage, light green above and silvery beneath.

**HIGH BUSH CRANBERRY**—This well-known native shrub is highly desirable as an ornamental variety. It has handsome, broad foliage of a lustrous, dark green color, changing later to rich coppery tints. The large flat cymes of white flowers are very ornamental, but the shrub is particularly conspicuous later in the fall and early winter for its brilliant scarlet fruit which hangs in large, pendulous clusters and remains on until spring.



Juneberries



Buffalo Berries

**DWARF JUNE BERRY**—Fruit borne in clusters. Reddish purple, changing to bluish black. Excellent for canning. The fruit is eagerly devoured by birds, which leave the finest fruits untouched where this is plentiful. A native of North Dakota.

## Horseradish

Will thrive in any soil and is a useful condiment. Plant 12 inches apart in row alongside of the garden and about 2 inches below the surface. If in digging the crown or some of the smaller roots are left it readily renews itself.

**MALINER KREN** is much superior to the common variety, as they grow larger, whiter and are of better quality.

**SANDCHERRIES**—Few wild fruits have taken so well to cultivation as has the South Dakota Wild Sand Cherry. Small dwarf growing when in the wild, and larger and more vigorous growing when under cultivation and each succeeding generation seemingly improving in flavor and size of fruit. The silvery, glossy color of the leaves in summer and especially on windy days is a beautiful sight. The brownish red stems in winter make pretty winter scenery. Splendid to plant on the lawn in front of taller shrubs. The fruit makes fine preserves and usually good eating. A plant which combines beauty and utility that every home should have.

## Ornamental Shrubs

**PEOPLE**, generally, are appreciating more the permanent value and beauty of shrubs. The charm and grace they lend to home grounds is invaluable, and, if judicious selection is made, it is possible to have a continuous succession of bloom from early in April to the days when the frost again nips the flowers of the very latest bloom.

In many cases it would be better to plant shrubs in groups of several to one side of the lawn instead of following the method of planting one in a certain place and spoiling the effect of the open lawn. In most cases, three, six, eight, or twelve of one variety should be used in a particular grouping. Several such groupings make an excellent border or foundation planting.

### BERBERIS THUNBERGII

Japanese Barberry. A pretty dwarf species that will fit into almost any planting and will grow in most any place. Handsome foliage of bright green oval shaped leaves which turn to the most brilliant shades of coppery red and orange in

autumn and which remain on until late fall. The slender, graceful little branches are lined with small scarlet berries which hang until well into winter. Used for foundation and group plantings and hedges. (Does not harbor wheat rust.) Height 2 to 3 feet.



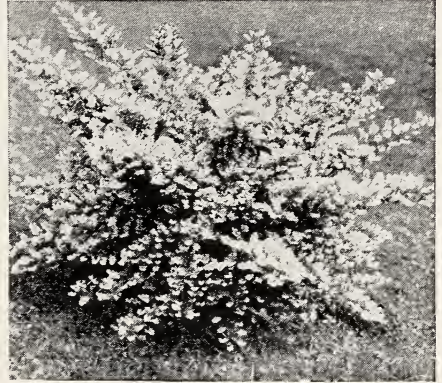
**CRAB—FLOWERING**

**CRAB, BECHTEL'S FLOWERING** (*Pyrus angustifolia*). Seldom over 20 feet high; covered in late spring with myriads of delicate pink flowers, resembling the daintiest double roses. Blooms when quite young.

**BUTTERFLY BUSH**

**BUDDLEIA** (Butterfly Bush) or Summer Lilac. One of the most admired and sought after shrubs in the trade. Of

quick bushy growth; when the lovely bloom - spikes appear in July, the shrub which had probably died down nearly to the ground during winter, is now a perfect specimen of about five feet; radiating a delightful perfume and glowing with the tints and flower shape of Spring Lilacs.



Butterfly Bush

**CORAL BERRY—(Indian Currant)**

Three to 5 feet. A desirable shrub for shady places. The inconspicuous rose colored flowers of June and July are followed in the fall by dull red coral-like berries which cling in great profusion along the branches. A very attractive, berried shrub.

**CURRENT, MOUNTAIN**

(*Ribes alpinum*)—Fragrant, yellow flowers; good foliage. An interesting, beautiful shrub, of dwarf, compact habit. Bears clusters of scarlet fruit.

Deutzia, Pride of Rochester

**DEUTZIA**

**PRIDE OF ROCHESTER**—Produces large white flowers, tinged with rose; vigorous growers. profuse bloomer and one of the earliest to bloom.

**GRACILIS** (Slender Branched Deutzia) — Of dwarf habit; flowers pure white; one of the first to bloom; fine for pot culture and winter blooming.

**DOGWOOD—Cornus Siberica**

Red-Twigged Dogwood. Good for border groupings, where the smooth, slender, bright red branches in winter make a very pleasing contrast with evergreens and snow. Small white blossoms early in summer. Good foliage. Thrives in shade. Height 6 to 8 feet.

**ELDER—Sambucus**

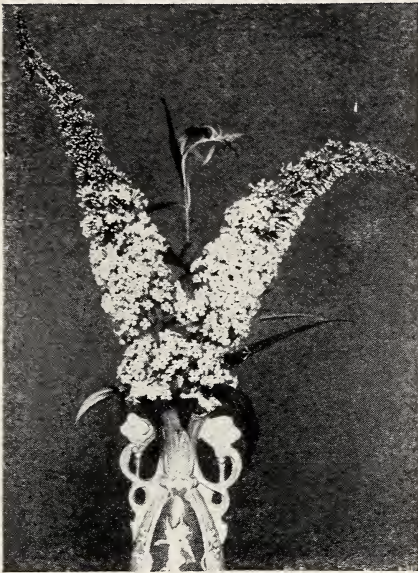
**COMMON ELDER** (*S. canadensis*)—A large, showy shrub, very ornamental in foliage, fruit and flowers and blossoming in June; flowers white, borne in large panicles; fruit reddish-purple berries in the fall.

**ELDER, GOLDEN** (*Sambucus nigra aurea*)—A handsome shrub, with golden yellow foliage and clusters of pure white flowers. Excellent for lawn planting.

**CUT-LEAVED ELDER** (*Laciniata*). 5 to 9 feet. A valuable variety with elegantly divided leaves. Of drooping habit and one of the handsomest shrubs in cultivation.

**FORSYTHIA—Golden Bell**

**FORTUNE'S FORSYTHIA** (*F. Fortunei*)—A beautiful shrub of medium size; flowers are of a bright yellow and appear before the leaves very early in the spring; foliage dark green; the best of the early flowering shrubs.



Dogwood



**UPRIGHT HONEYSUCKLE**

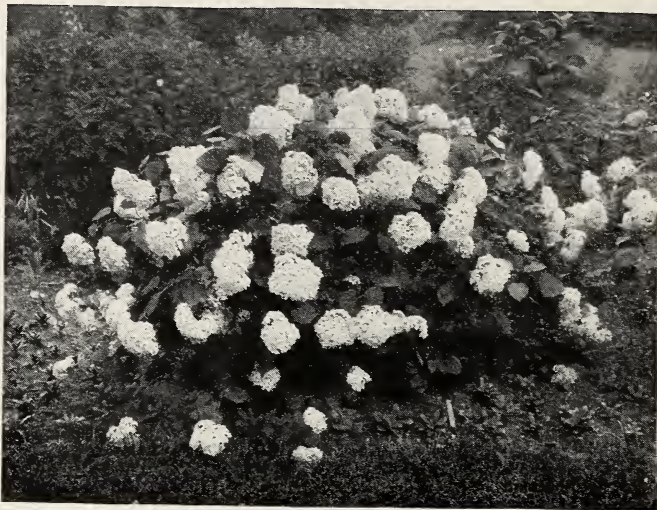
(Lonicera)

**PINK TARTARIAN HONEYSUCKLE** (*L. Tartarica rosea*)—Pink flowers that make a lovely contrast with the foliage; planted with the Grandiflora, the two make a beautiful display.

**RED TARTARIAN HONEYSUCKLE** (*L. T. var rubra*)—Blooms early in the spring; flowers a beautiful bright red.

**WHITE TARTARIAN HONEY-SUCKLE** (*L. T. var Alba*)—Produces creamy white, fragrant flowers in May and June; forms a high bush.

**MORROW'S HONEYSUCKLE**—Grows only 4 to 6 feet tall and spreading. It is valued chiefly for the brilliant red fruits which appear in August. Cream-yellow blossom—superior to Tartarian for hedging.



Hydrangea Arborescens

**HYDRANGEA ARBORESCENS STERILIS (Hills of Snow)**

This grand American shrub deserves increased attention. Handsome foliage and showy, snow white, ball-shaped clusters of flowers make it a most conspicuous object wherever grown. Blooms the greater part of summer, does its best under all circumstances, is perfectly hardy and increases in size and beauty from year to year. Does best in moist, fertile soil with full exposure to the sun. Thrives most anywhere and does well even if neglected.



Persian Lilac

**LILACS**

The lilacs are well-known, beautiful shrubs, indispensable in every collection.

**CHARLES THE TENTH**—A strong growing bush producing loose trusses of reddish purple flowers which fade to mauve.

**JOSIKAEA (Hungarian Lilac)**—Late in May. A distinct type, with dark green leaves. The deep purple buds, arranged in loose panicles, open into light, violet-colored flowers. 2 to 3 ft.

**MADAME LEMOIN**—A choice variety of the lilac, producing long racemes of double purple flowers, lasting longer than the single sorts. A valuable acquisition.

**PERSIAN LILAC (S. Persica)**—Grows 4 to 6 feet high, foliage small and flowers a bright purple.

**PRESIDENT GREVY**—Double. Clusters large, full; pale wisteria-violet.

**PURPLE LILAC (S. Vulgaris)**—The well-known purple variety; always a standard sort.

**VILLOSA**—Late blooming lilac. Flowers large, light purple in bud, white when open, fragrant. Does not grow high. Height, 5 to 8 feet.

**WHITE LILAC (S. Vulgaris Alba)**—Too well-known to need description; flowers white and fragrant.

**HYDRANGEA, P. G.**

**PANICULATA GRANDIFLORA**—A beautiful, tall shrub with leaves of bright, shiny green; flowers borne in huge panicles from 8 to 12 inches long, light pink, changing to brown later in the fall; blooms in August and September; can be grown in tree form successfully and make a very desirable lawn ornament.



Madame Lemoin



**MOCK ORANGE***Philadelphus*

**GARLAND SYRINGA** (*P. Coronarius*)—A well-known shrub with pure white, very fragrant flowers; one of the first to bloom.

**GOLDEN LEAVED SYRINGA** (*P. Coronarius*, var *Aurea*)—A handsome variety with golden-yellow foliage; keeps its color the entire season; is splendid for grouping with other varieties for pleasing effects.

**PRUNUS TRILOBA**

**DOUBLE FLOWERING PLUM**—5 to 8 feet. A large shrub or small tree; the branches are covered early in the season, before leaves appear, with small, double, pink flowers. Very desirable.

**PYRUS JAPONICA**

**QUINCEBERRY**—Has bright scarlet flowers in great profusion in early spring. As single shrubs on the lawn they are very attractive, and for edges of borders or groups of trees they are especially adapted.

**SNOWBALL***Viburnum*

**COMMON SNOWBALL** (*V. Opulus Sterilis*)—Grows 6 to 8 feet high, the old fashioned snowball; its large globular clusters of pure white flowers are produced in May and June and makes a very attractive appearance.

*Prunus Triloba***SNOWBERRY***Symphoricarpus*

**CORAL BERRY** (*S. Vulgaris*)—A slender branched upright shrub, valuable for planting in shady places, as the foliage is very persistent; the fruit is purplish red and hangs on well into winter; flowers small and rose colored.

**SAND CHERRY***Cistena Purple Leaf*

A dark purple leaf sand cherry taking after the seed parent, the South Dakota Sand Cherry. In planting groups of ornamental shrubs, *Cistena* should be planted in front of the taller growing *Stanapa*. *Cistena* is more intense in the purple or deep red coloring of the foliage, which is so striking and beautiful all the season. The Persian Purple Leaf plum is said to trace back to the garden of the Shah of Persia, but this tree of unique beauty winter kills on the prairie. *Cistena*, which is a cross between the Persian Purple Leaf plum and the South Dakota Sand Cherry, combines the good points of both and is a real addition to our prairie lawns.

**SPIREA—The Spireas**

This group of shrubs affords the greatest range in size, habit and color of flowers of any commonly cultivated ornamentals. Spireas are of great beauty when in bloom and of large value for a great variety of decorative purposes.

**ANTHONY WATERER SPIREA**—A very popular low growing bush, becoming 2 feet high and constantly in bloom all summer. Flower clusters large, flat topped and of deep rose color.

**Spirea aurea** (Golden Spirea)—One of the best of our yellow-leaved shrubs. Holds its color all summer.

**Spirea arguta**—Large flowers borne on comparatively upright stems. One of the best Spireas.

**BILLARD SPIREA** (*S. Billardi*)—Tall, erect shrub with canes terminated by feathery plumes 5 to 8 inches long, of dainty pink color.

**Spirea Bumalda**—Dwarf, showy, rose-colored flowers all summer. One of the best for growing in front of tall shrubs.

*Spirea Billardi*



## SPIREA—(Continued)

**S. CALLOSA ALBA**—An upright shrub, becoming 18 inches to 2 feet high. Very profuse bloomer, and continuing in flower throughout the summer. Flowers pure white, in flat topped clusters.

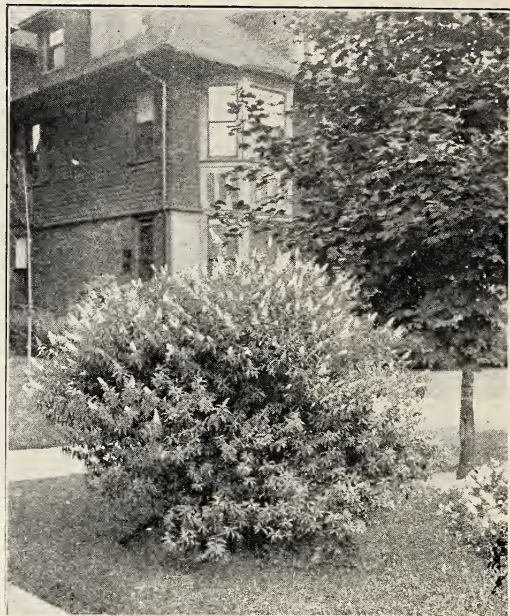
**SPIREA Callosa Rubra**—Deep rose-red flowers in close clusters, nearly all summer.

**FROEBELI**—Dwarf, and similar to A. Waterer, but a trifle taller, with broader leaves. Bright crimson flowers in dense corymbs during July and August.

**SPIREA SORBIFOLIA**—Long, showy panicles of white flowers. A fine Spirea.

**S. THUNBERGI (Thunberg Spirea)**—A very graceful, early flowering shrub, the slender branches clothed with feathery, bright green foliage. Flowers pure white in early spring.

**VAN HOUTTE SPIREA (S. Van Houttei)**—This is the most popular of all the spireas, and is more largely planted than any other one shrub. Its gracefully arching branches heaped as they are with the white blossoms in spring, and its thriftiness under the most trying of conditions, are the reasons for its popularity. It is adapted to many purposes in out-door decoration and wherever it is put it thrives, always giving beauty and cheer in return.



Spirea Sorbifolia

## SUMAC

**COMMON (Staghorn) SUMAC** — A showy, broad-headed shrub with very large, long, compound foliage, light green in color, changing to showing autumnal shades of red and yellow. The new growth of the smaller branches is clothed in with a peculiar brown, giving an appearance similar to the growing horns of the deer. The bark below is a rich orange green color. An elegant plant for grouping where rich color effects are desired.



Sumac

**CUT-LEAF SUMAC (Laciniata)**. 6 to 8 ft. An ornamental variety similar to glabra, but has its leaves deeply cut, giving it a fern-like appearance.

## TAMARIX

**T. HISPIDA AESTIVALIS**—A beautiful shrub with small leaves; similar to the Juniper; flowers are pink, small and delicate, borne on long spikes; blooms in May.

## WEIGELA

*Diervilla*

The Weigelas are shrubs of erect habit while young, but gradually spread and droop as they acquire age; flowers are large, trumpet-shaped, of all shades and colors; very effective for grouping and borders; blossoms are produced in June and July.

**EVA RATHKE**—Flowers a brilliant crimson; a beautiful clear, distinct shade.

**ROSEA**—An elegant variety with fine rose colored flowers appearing in June.





62.65

51929

# HANKINSON NURSERY CO., Hankinson, N. D.

## MAIL ORDER PRICE LIST

LIBRARY RECEIVED

MAY 21 1929

U. S. Department of Agriculture

				Size		Each		Doz.	
Apples				Size		Each		Doz.	
Dutchess, Hibernial )				18/24 in.		1.30		13.00	
Pattens Greening, )				2/3 ft.		1.60		16.00	
Wealthy, Anisim, )				3/4 ft.		1.95		19.50	
Redwing, Malinda )									
</									

Perennials (Postpaid)	Each	Doz.
Bleeding Heart, Yucca,		
Double Tiger Lily	65c	6.50
Shasta Daisy, Golden		
Glow, Hollyhock,		
Gaillardia, Foxglove,		
Baby's Breath, Oriental Poppy, Day Lily,		
Lemon Lily, Tiger Lily	45c	4.50
Iris, Phlox, Mallow		
Marvel, Platycodon,		
Columbine, Achillea,		
Lily of the Valley		
Larkspur, Anchusa,		
Campanula, Coreopsis,		
Cannas		

Peonies (Postpaid)	Each	Doz.
3 to 5 Eye Divisions	65c	6.50
3 yr. old clumps	2.50	25.00
Dahlias		
Tubers	45c	4.50
Clumps	85c	8.50

Bulbs (Postpaid)	Doz.	Hundred
Tulips Narcissus		
Crocus, Gladioli	1.30	10.50

Roses	Each	Doz.
Hansa, Sir Thos. Lipton,		
Belle Poitevine, Persian		
Yellow, Blanc de Coubert,	1.30	13.00
Sarah Van Fleet, Frau Karl		
Druschki, Grootendorst		

Amelie Gravereaux, Harrison's Yellow, Gruss an	1.65	16.50
Teplitz, Roserie de L'Hay,		
Hugonis		

Dorothy Perkins, Crimson		
Rambler, Yellow Rambler	95c	9.50

Evergreens	Size	Each	Doz.
(B&B means with ball of dirt on roots wrapped with burlap)			

Black Hills Spruce	12 18 in.	95c	9.50
Black Hills Spruce B&B	12 18 in.	1.95	19.50
Black Hills Spruce	18 24 in.	1.30	13.00
Black Hill Spruce B&B	18-24 in.	3.25	32.50
Black Hill Spruce B&B	2 3 ft.	6.50	65.00
Colorado Spruce B&B	12 18 in.	2.60	26.00
Colorado Spruce B&B	18-24 in.	4.50	45.00
Colorado Spruce B&B	2 3 ft.	6.50	65.00
Colorado Blue ) B&B	12 18 in.	6.50	65.00
Spruce Select ) B&B	18-24 in.	13.00	130.00
	B&B	2 3 ft.	19.50 195.00

Red Cedar	12 18 in.	95c	9.50
Red Cedar	18 24 in.	1.30	13.00
Red Cedar	B&B 18-24 in.	3.25	32.50
Red Cedar	B&B 2 3 ft.	6.50	65.00
Scotch Pine and )	12 18 in.	95c	9.50
Ponderosa Pine ) B&B	12 18 in.	1.95	19.50
	B&B 18 24 in.	3.25	32.50
	B&B 2 3 ft.	6.50	65.00

Mugho Pine	B&B 12 18 in.	6.50	65.00
Mugho Pine	B&B 18 24 in.	9.75	97.50
Amer. Arbor Vitae	B&B 12 18 in.	2.60	26.00
Amer. Arbor Vitae	B&B 18 24 in.	3.25	32.50
Amer. Arbor Vitae	B&B 2 3 ft.	4.50	45.00
Pyr. Arbor Vitae	B&B 18 24 in.	5.50	55.00
Pyr. Arbor Vitae	B&B 2 3 ft.	9.75	97.50

Norway Spruce	12 18 in.	75c	7.50
Norway Spruce	18 24 in.	1.00	10.00
Norway Spruce	B&B 18 24 in.	2.90	29.00
Norway Spruce	B&B 2 3 ft.	4.85	48.50
White Spruce	12 18 in.	95c	9.50
White Spruce	B&B 12 18 in.	1.95	19.50
White Spruce	18 24 in.	1.30	13.00
White Spruce	B&B 18 24 in.	3.25	32.50
White Spruce	B&B 2 3 ft.	6.50	65.00

Ornamental Trees	Size	Each	Doz.
Silver Leaf Poplar )	3 4 ft.	80c	8.00
Lombardy Poplar, )	4 5 ft.	95c	9.50
Black Walnut, Catal- )	5 6 ft.	1.30	13.00
pa, Tartarian Maple, )	6 8 ft.	1.65	16.50
Niobe Weeping Willow )			

	Size	Each	Doz.
Mt. Ash, Butternut, )	4 5 ft.	1.30	13.00
Bolleana Poplar )	5 6 ft.	1.95	19.50
	6 8 ft.	2.60	26.00

Hackberry, Vase Elm )	4 5 ft.	1.65	16.50
Moline Elm )	5 6 ft.	2.25	22.50
	6 8 ft.	2.90	29.00

White Birch, American Linden )	4 5 ft.	1.95	19.50
	5 6 ft.	2.60	26.00
	6 8 ft.	3.55	35.00

Chinese Elm, Horse Chestnut )	4 5 ft.	3.25	32.50
	5 6 ft.	3.90	39.00
	6 8 ft.	4.85	48.50

Weeping Mt. Ash	1 yr. head	4.85	48.50
Weeping Elm	1 yr. head	2.45	24.50

Cut Leaf Wpg. Birch )	5 6 ft.	5.65	56.50
Schwedleri Maple, )	6 8 ft.	6.50	65.00

Forest Trees	Size	Each	Doz.	Hundred
Green Ash & Soft Maple )	4 5 ft.	65c	6.50	52.00
	6 8 ft.	95c	9.50	76.00
	6 8 ft.	1.60	16.00	128.00
	8 10 ft.	2.50	25.00	200.00
	10 12 ft.	3.90	39.00	312.00

Box Elder & Cottonwood )	4 5 ft.	35c	3.50	28.00
	5 6 ft.	50c	5.00	40.00
	6 8 ft.	65c	6.50	52.00
	8 10 ft.	95c	9.50	76.00
	10 12 ft.	1.30	13.00	104.00

American Elm )	4 5 ft.	1.30	13.00	104.00
	5 6 ft.	1.95	19.50	156.00
	6 8 ft.	3.25	32.50	260.00
	8 10 ft.	4.00	40.00	320.00
	10 12 ft.	4.85	48.50	388.00

Canadian & Northwest Poplar )	4 5 ft.	50c	5.00	40.00
	5 6 ft.	80c	8.00	64.00
	6 8 ft.	1.00	10.00	80.00
	8 10 ft.	1.45	14.50	116.00
	10 12 ft.	1.75	17.50	140.00

Forest Seedlings	Size	Per 100	Per 1000
Ash & Elm )	12 18 in.	3.00	24.00
	18 24 in.	5.00	40.00
	2 3 ft.	7.00	56.00
	3 4 ft.	10.00	30.00

Box Elder )	12 18 in.	2.50	20.00
	18 24 in.	3.75	30.00
	2 3 ft.	5.50	45.00
	3 4 ft.	7.50	60.00

Canadian Poplar )	12 18 in.	4.00	32.00
	18 24 in.	5.00	40.00
	2 3 ft.	6.00	48.00
	3 4 ft.	8.00	64.00

Northwest Poplar )	12 18 in.	7.00	95.00
	18 24 in.	16.00	130.00
	2 3 ft.	24.00	195.00
	3 4 ft.	30.00	240.00

Cottonwood )	12 18 in.	2.00	15.00
	18 24 in.	3.00	24.00
	2 3 ft.	4.00	32.00
	3 4 ft.	6.00	48.00

Chinese Elm )	12 18 in.	19.50	156.00
	18 24 in.	24.00	192.00
	2 3 ft.	32.50	260.00
	3 4 ft.	40.00	320.00

Laurel Leaf, )	18 24 in.	3.90	31.25
White & Golden )	2 3 ft.	4.85	38.75
Willows )	3 4 ft.	6.50	52.00



# Ornamental Hedges

You will want these leafy fences to divide your lot from your neighbor's, or to make out-of-doors rooms from different portions of your own grounds. You should consider whether you want a clipped or free-growing hedge, and whether you want a low one or a high one.



Cotoneaster

In most cases hedges should be planted one foot apart.

## JAPANESE BARBERRY HEDGE

(*Berberis Thunbergii*) Used extensively where a good, dwarf bushy hedge is desired. The foliage is an excellent green which turns to a beautiful coppery red in the fall, followed by pretty red berries. It is not susceptible to wheat rust. Can be grown either trimmed or untrimmed, with a height of from 1½ to 3 ft.

## BUCKTHORN

**COMMON BUCKTHORN** (*Catharticus*). 4 to 6 feet. June-July. One of the best plants for ornamental hedges. The ovate, dark green leaves are attractive throughout the season. Flowers small and inconspicuous. Branches are thorny. It stands shearing well and is easily trimmed to any desired height and form.



Honeysuckle-Morrowi

**Low Hedges:** Cotoneaster, Alpine currant and barberry may be used in low hedges.

**Medium Hedges** may be planted to *Spirea Van Houttei*, Honeysuckle, or Buckthorn.

**Tall Hedges,** to seclude a certain spot, or to hide an ugly out-building, serve their purpose nicely when planted to lilacs. Honeysuckle or Caragana may be used effectively.

Hardy flowers planted along the hedge give it color, and the tall-growing hollyhocks make a beautiful flimsy wall in mid-summer. An informal unclipped hedge of *Spirea Van Houttei* is a riot of white beauty when it blooms, and it is really a shame to spoil its graceful drooping form by clipping it more than is necessary to keep the height uniform.

## CARAGANA

**SIBERIAN PEA-TREE**—Cataloged by some as a deciduous tree, but in the North and West it belongs among the tall growing shrubs. A most useful ornamental species. Its numerous yellow tapering twigs and very small pinnate leaves are of the same character as those of the acacias, but much smaller and of a rare green color. The flowers are small, yellow, and are produced singly or in clusters.

## COTONEASTER

**Acutifolia.**—An attractive low-growing shrub; small, oval, glossy, dark green leaves; grows very dense.

## MOUNTAIN CURRANT

Dwarf, compact habit. Handsome foliage and fragrant, yellow flowers. Bears clusters of scarlet fruit.

## RUSSIAN OLIVE

*Elaeagnus Angustifolia*

While this plant really is a small tree, yet when it is kept pruned rather severely, it forms a most attractive shrub. Its foliage is of a remarkable silvery hue, showing up in striking contrast to that of the green of other shrubs or trees. It is admirable for tall backgrounds where unusual color tones are desired. It also is useful for hedges, either trimmed or untrimmed.



Russian Olive

# Hardy Perennial Plants

**T**HESE can be used to best advantage in groups and beds on the lawn, as borders for drives, walks, or in front of shrubbery and in the garden. Some of the tall-growing sorts may be planted in among the shrubbery with good effect. Soil should be kept well fertilized. A light covering of coarse, strawy manure or something that will not pack is beneficial in winter.

## ACHILLEA PTARMICA

"The Pearl," Milfoil—Bears great masses of small pure white flowers on long stems, all summer. Fine for cutting. Height 12 to 18 inches.

## ANCHUSA ITALICA

Bearing panicles of clear sky-blue flowers; a very useful perennial growing three feet high and blooms freely from June until September if not allowed to seed.

Aquilegia (See Columbine).

## BABY'S BREATH—Gypsophila Paniculata

Two or three feet in height and most graceful in effect, with mist-like white flowers that are popular for cutting, as they give an air for grace and harmony to any arrangement. Blooms July to September.

## BLEEDING HEART

*Dielytra* or *Dicentra spectabilis*. The old-time favorite, with daintily lobed foliage and sprays of pink, heart-shaped flowers. Blooms April to June. 2 feet high.



Bleeding Heart

## CAMPANULA—Canterbury Bell

A good garden flower producing a great profusion of gaily colored blooms. Assorted colors.

## CHINESE LANTERN PLANT

One and one-half feet. Flowers yellow with dark center. Produces balloon-like husks, which turn bright red when ripe and resemble Chinese lanterns.

## COLUMBINE

**AQUILEGIA CANADENSIS**—Blooms from June to August. Height 3 feet. Flowers held gracefully on long stems. A strong grower and free bloomer. An old favorite, and does well in almost any location.

## HOW TO PLANT CANNAS

We sell dormant roots. These can be started in 4-inch pots in the house in March and then transplanted in the bed in May, after danger of any frost is over. The roots can also be set in the bed in May, after the ground gets warm. If bulbs are planted too early, they are very apt to rot, especially if the ground should be wet and cold. Nothing is gained by too early planting. Do not set them too deep; the eye should show a little through the ground when done. Plant in good, rich garden soil, mixed with one-half of old rotted stable manure. Set them about 18 inches each way. Water sparingly the first two weeks after planting. After plants begin to grow good, water liberally.



Columbine

# Cannas

The grandest of all bedding plants. Of quick growth and tropical appearance. Throughout the summer they present a mass of gorgeous colors until withered by frost in the fall. Cannas need a good deal of water and a liberal dose of liquid manure should be applied from time to time. Never let the bed get weedy or baked hard. In ordering note height given for each variety so tall varieties may be planted as background in beds.

**MRS. ALFRED F. CONRAD**—Rose-pink. 3 to 4 feet. The prettiest of all salmon or rose-pink Cannas. Many people say if they could have only one variety of Cannas, they would take Mrs. A. F. Conrad. Green leaves, beautifully rounded petals and shaped flowers and of such good substance that they keep longer than most varieties as cut flowers. Price: 30c each; 10 for \$2.70, by paid parcel post.

**EUREKA**—4 feet. Remarkably free-flowering variety and with its striking white flowers, which first appear cream, makes a very effective show in conjunction with a good scarlet such as King Humbert. A robust grower, forming sturdy, shapely plants quickly.





CANNA—The President

**THE PRESIDENT**—4 feet. In color a rich glowing scarlet with immense rounded flowers, seven inches across when fully open, are produced on strong erect stalks well above the heavy foliage. Free-bloomer and strong grower.

### COREOPSIS GRANDIFLORA

Tickseed. Flowers rich golden yellow. Blooms continuously. Good for cutting. Height 2 to 3 feet.

### DIGITALIS—Foxglove

The spire-like flowering shoots of this lovely plant possess a dignity and elegance unequalled by any other garden flower. The stems range from 3 to 5 feet tall, bearing spire-like racemes of drooping, thimble like flowers of great beauty. Various shades from white to purple.



Dahlia, Ornamental

## CANNAS—(Continued)

**HUNGARIA**—3½ feet. The best pink Canna. Leaves bluish green, never burn. Flowers very large, with immense petals. Trusses of enormous size borne well above the foliage. Very compact, almost dwarf and of a very luxuriant growth.

**KING HUMBERT**—4 feet. Scarlet flowers, bronze leaves; greatest favorite today. This remarkable "Gold Medal" Canna has been the sensation of the past twelve years. It is a cross between the orchid flowering and the French or Crozy type, combining the best features of both, the large flowers of one with the free-blooming character of the other, and the handsome broad, tropical foliage.

**YELLOW KING HUMBERT**—4 feet. Foliage is a very dark green, flowers a deep rich yellow, softly spotted and blotched with bright red; measuring 5 to 7 inches across, individual petals 3 to 3½ inches in diameter. An orchid flowering sport of the well-known variety King Humbert. Some plants will occasionally give a scarlet or scarlet-striped flower, which we consider an improvement rather than a defect.

**STATUE OF LIBERTY**—Height 6 to 7 feet. Red. This Canna outstrips exaggeration. We believe it is, without exception, the largest Canna in existence. Like Statue of Liberty, it overtops anything of a similar nature that can be compared with it. Its foliage is bronze, leaves half as large again as its nearest rival, and of a rich, luxuriant ebony shade. It holds aloft a fiery, flaming flower, orchid type, blazing flame-red in color. The flowers are of large size and good form. The effect is massive and impressive.

### SHASTA DAISY

Large, snowy-white flowers four inches across; in bloom all summer; a good cut-flower variety.

### DELPHINIUM

(Perennial Larkspur)

Indispensable to the herbaceous garden. Their long, showy spikes of flowers persist from June until frost and furnish the most satisfactory blues to any color scheme.

## Dahlias

Tubers. Strong one to two eye tubers. Plant horizontally for best results. Named varieties or mixed colors.

**CACTUS DAHLIAS** — Characterized by long, narrow, pointed, tubular and twisted petals of graded lengths, giving the layered flowers a very striking and attractive appearance; various new hybrids introducing new phases.

**DECORATIVE DAHLIAS**—The flowers are usually large, but full open faced, with long, flat petals. They habitually bloom with great freedom and the individual flowers make a gorgeous display in the field besides furnishing magnificent cut flowers.

**POMPON DAHLIAS**—Medium to small size, of perfect show type, invariably with long, smooth stems. Especially good for small bouquets, sprays or dwarf beds.

**"SHOW" DAHLIAS**—This type is the most formal and perfect in shape, composed of short, stiff, numerous quills of varying character. They make excellent compact bouquets and usually outlast the other types when cut.



Shasta Daisies



**GAILLARDIA—Blanket Flower**

Among the showiest and most profuse bloomers. The plants are compact, growing from 12 to 18 inches tall; begin blooming in June and continue until frost. Flowers in rich shades of dark red and yellow.

**Golden Glow****Gaillardia****GOLDEN GLOW**

We call attention to this notable novelty and offer it as the finest herbaceous border plant introduced for many years. It is of easy growth and is giving complete satisfaction. But few plants can vie with it in attractiveness. There is no floral novelty before the public to be compared to it for effectiveness and worth. Golden yellow flowers. Grows 5 to 7 feet high.

**HOLLYHOCKS**

These beautiful, much appreciated flowers make excellent screens and their tall flowering spikes and gay colors make them very decorative. We have them in double, and single flowers in assorted colors pink, white, red and yellow.

**HIBISCUS—Mallow Marvel**

Without exception the finest production in the Hardy Plant

line in years. They make a bush-like growth from 5 to 6 feet high and 3 to 4 feet across. The flowers are of enormous size, frequently 8 to 10 inches in diameter, ranging in color from fiery crimson through various shades of red, pink and white. It should be in every garden, as it is perfectly hardy, will thrive in any locality or kind of soil, and blooms continuously from July until late fall. Can furnish in separate colors red, pink or white.

**Phlox****Hardy German Iris****IRIS GERMANICA—German Iris**

The tall, sword-like leaves are interesting in themselves until the gorgeous flowers, with their unusual form, their beautiful variegation, and numerous shades of color, make their appearance in May.

**Madam Chereau**—White, elegantly frilled with wide border of clear blue; one of the most charming sorts.

**Florentina**—A very fine tall blue.

**Honorabilis**—Upper petals golden bronze, lower petals rich mahogany brown; very effective.

**Celeste or Heavenly Blue**—Upper petals delicate lavender; lower petals clear deep lavender; flowers very large and extra fine.

**Prosper Laugier**—Upper petals fiery bronze, lower petals ruby purple. One of the best new varieties.



### LILY-OF-THE-VALLEY (Convallaria)

This is often starved and neglected and relegated to some poor corner, but this popular and fragrant subject, like most other plants, repays for being well treated, and if the bed is given a liberal top-dressing of well decayed manure in fall or early spring it will show the effect by increased size, number and vigor of the flowers. The stock we offer is strong clumps, especially suited for outdoor planting, which should be done before the end of April.



Tiger Lilies

### TIGER LILY

*Lilium Tigrinum*, 3 to 4 feet. July to August. Bright red, marked with large purplish spots. A well known old garden plant which is always popular for certain effects, and will produce superb results when planted in masses. Succeeds in almost any soil.

### DAY LILY

These are excellent plants with grass like foliage and dark orange colored flowers borne in panicles on long stems. They are exceptionally hardy, thriving on any good soil, and are especially adapted to moist or shady places.

### DOUBLE TIGER LILY

(*Tigrinum flore pleno*)—The double flowers are borne in large clusters. They are bright salmon-red with contrasting purplish black spots. Blooms during August and September. This is the only double Lily in existence which is worth while cultivating. Very hardy, permanent and easy to grow.



Lily-of-The-Valley

### LEMON LILY

*Hemerocallis Flava* — These are among the oldest and best loved of garden plants. Very hardy and persisting; they need no winter protection and thrive in any good soil, preferring, however, a rich, moist loam. For garden borders and waterside planting, few perennials are more satisfactory. A good clump of this fine old lily, when blooming in June and July lights up the border superbly with many tall stems of fragrant, waxen, clear yellow blooms; grows about two feet high.

## Peonies

### *The Queen of the Garden*

No flowers exceed the Peonies in popularity, and none are more easily grown. They are seldom attacked by insects or disease, and are perfectly hardy, requiring no covering in the severest weather. They thrive in all kinds of soil and flourish in a rich deep loam.

No hardy perennial is of more permanent value than the Peony. The first cost is the only cost, and they continue to increase in size and value for many years. The foliage is rich and of beautiful deep green color, which renders the plant very ornamental even when out of flower, and no other flowers are so well adapted for interior decoration and none make more massive color effect when planted in a border or in a bed on the lawn. Their popularity has increased during the past few years since the new improved varieties have been disseminated. Peonies range in color from cream and pure white through the various shades of pink and red to the deepest purple and maroon, in all possible combinations of tint and form.

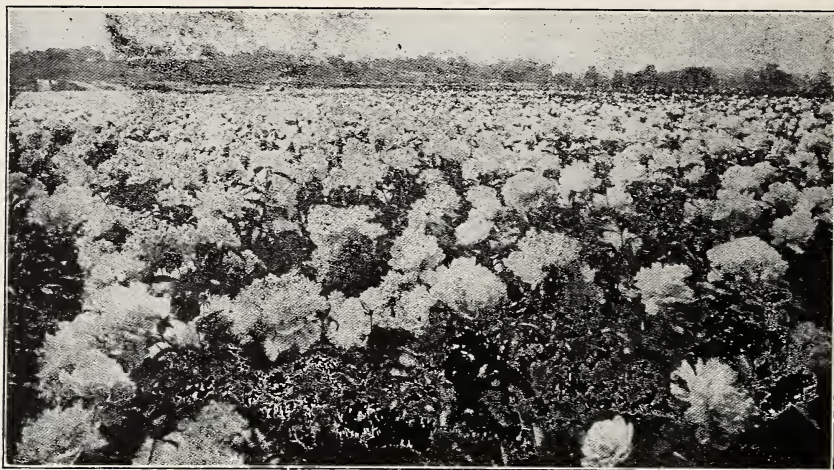
Distance to plant, 2 to 2½ feet apart. For field culture rows should be 3½ to 4 feet apart.

**Plant Peonies** so that the tops of the crowns or eyes are two inches under the surface of the ground. A covering of leaves, straw or manure late in fall will protect them during the winter. This should be removed early in the spring.



Peony





A Wealth of Peonies in Bloom

## PEONIES—(Continued)

## WHITE VARIETIES

- 9.3 **FESTIVA MAXIMA** — Large, full double bloom, color pure white with an occasional carmine spot; strong grower; one of the best of the white varieties. Early.
- 8.5 **MARIE LEMOINE**—Enormous, solid ivory-white. Deepening to chamois in center. Very fragrant. This exquisite flower stands absolutely at the head of late white peonies.
- 8.1 **COURONNE D'OR**—Large blooms of ivory-white, with a circle of yellow which suggests the name; an extra-fine sort. Blooms rather late.
- 8.1 **DUCHESS DE NEMOURS**—Here is a variety of unique beauty. The guard petals are extra large, the center is full; the color is the clearest transparent white, without red markings; the fragrance is unusually dainty.

## PINK VARIETIES

- 7.6 **EDULIS SUPERBA** — Pink. Large, loose crown type. Bright pink with slight violet shadings at base of petals. Fragrant. Early, strong and upright in habit, very free bloomer. Best early commercial pink.
- 8.1 **LIVINGSTONE**—Pale rose, beautiful shadings with some carmine; would be considered a rose type. Blooms late, quite tall, on very strong stems. One of the best.
- 8.5 **OCTAVIE DEMAY**—Very large, flat crown, guards and center delicate hydrangea-pink; collar almost white. Very fragrant; very dwarf; midseason.
- 9.8 **THERESE**—Violet-rose, changing to lilac-white; mid-season. One of the finest peonies.



Felix Crousse

## Rating

## Color

8.5	Pink
8.1	White
7.9	Red
7.6	Pink
9.3	White
9.8	Pink
8.4	Red
8.5	White
8.1	White
8.8	Red
7.3	Red

1—	Octave De May
2—	Couronne D'Or
3—	Rachael
4—	Edulus Superba
5—	Festiva Maxima
6—	Therese
7—	Felix Crousse
8—	Marie LeMoine
9—	Duchesse de Nemours.
10—	Karl Rosenfield
11—	Madam Buequet

## RED VARIETIES

- 8.4 **FELIX CROUSSE**—Red. Large, compact. Deep rose red. Fragrant. Strong robust grower. Free bloomer. Called by many growers the best one-color red in cultivation. Medium season.
- 8.8 **KARL ROSENFELD**—Very large, globular, compact, semi-rose type. Dark crimson. Very strong, tall, compact grower and free bloomer. Mid-season. A very brilliant and striking variety. Slightly fragrant, agreeable. Splendid keeper as cut flower.
- LOUIS VAN HOUTTE**—Velvety purple; very dark color and fine form. Plant vigorous in growth, with fine foliage. Late.

- 7.2 **RUBRA SUPERBA** — Large, compact, informal rose type; deep rose-carmine or crimson, fragrant; medium grower and bloomer; very late; considered the best of very late varieties.





Phlox

## Hardy Perennial Phlox

Phlox is one of the most easily grown hardy perennials, and the large number of beautiful varieties now offered makes it especially desirable. These noble flowers are not only beautiful as individuals, but the cheerful appearance of our gardens during the summer and autumn months is much indebted to them. They succeed in any position or soil, and can be used to advantage either as single specimens in the mixed border or as large clumps or beds on the lawn. The ease with which they are cultivated, their entire hardiness and the extended time of blooming, combined with the varied and beautiful coloring, make them especially valuable for garden planting. The perennial Phlox usually commence to bloom in early summer, and are brilliant with color until after several frosts have come.

### PHLOX

- Riverton Jewel**—Lovely mauve rose with brilliant red eye.  
**R. P. Struthers**—Rose cherry red with claret red eye.  
**Deutschland**—Glittering orange carmine, deeper at center. A very showy tall growing variety.  
**Mme. Von Hoboken**—New soft pink without eye. Very large flowers on long spike.  
**Dr. Chas. H. Mayo**—White with red center, very large and tall.  
**P. Dutrie**—Deep rose, white halo with carmine eye.  
**O. Wittich**—Very light pink, deeper center, carmine eye.  
**Hindenburg**—Crimson red with deeper eye, very choice.

### PLATYCODON GRANDIFLORUS

Bell Flower. Cupped, star shaped flowers. Blooms freely from June to September. Height 18 inches. Blue or White.



Yucca

### POPPY

**ORIENTAL** — This is the most showy of all the perennial poppies. The immense rich scarlet-red flowers are borne profusely during late May and June.

### YUCCA FILAMENTOSA

#### Common Yucca

The broad, sword-like evergreen leaves of this plant make it effective in low groups, or for edging. Flowering spikes often 8 feet tall, bearing hundreds of creamy white flowers.



Oriental Poppies



# Bulbs

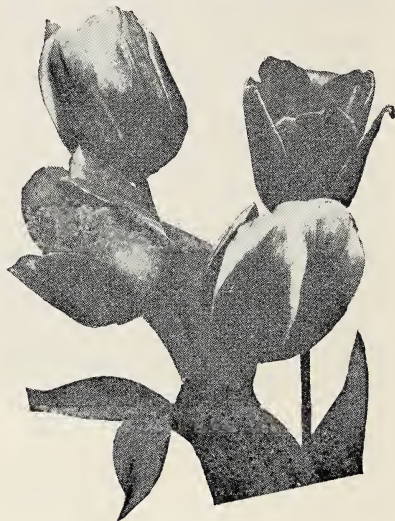
## TULIPS

The great variety of dazzling colors in every conceivable combination makes the **TULIP** the most popular of **SPRING FLOWERING BULBS**. By planting the different classes of Tulips, a display of bloom can be had for about a month from the first bloom of the early flowering varieties until the ending up of the season with the tall, late blooming **DARWINS**. Tulips can be planted any time from the latter part of **SEPTEMBER** until the ground is **FROZEN SOLID**. Set the bulbs so that the tops will be three inches below the surface and four or five inches apart. If one wishes to use the ground again in the spring after the Tulips have bloomed, with shallow rooted plants such as Geraniums and other kinds of annuals, the bulbs may be allowed to remain a second year without lifting; merely removing the tops as soon as they turn yellow. If necessary to lift it may be carefully done as soon as they cease blooming and then buried in an out-of-the-way place until they have completed their growth, when they can be stored in a cool dry place and kept until fall.

### SINGLE EARLY TULIPS

**DARWIN TULIPS**—The Darwins are rapidly becoming the most popular of all Tulips. This is due to their clear, bright colors, their tall, sturdy growth, and their large, beautifully formed, cup-shaped flowers. The colors are brilliant but not harsh, and the different varieties harmonize well when planted together or with other flowers. They are especially beautiful in masses and make a wonderful foreground for shrubbery. The Darwins offer a great variety of colors, but no yellows. We must go to the May Flowering Tulips for a late yellow. Darwins are used almost exclusively for outdoor planting but are also splendid forcers. They should not be brought to the heat earlier than January.

We offer a selected list of the very best and most popular Darwins.



Tulips

**DOUBLE TULIPS**—These are not so good for forcing as are the single varieties, as they bloom later. They make very beautiful flowers and every garden should have at least a few of them.

**PARROT or DRAGON TULIPS** — These very odd and showy Tulips are of large size and have curiously cut and fringed petals, making them distinct from any other Tulips. They are on long stems and the colors are striking.

### GLADIOLI

This class of summer-flowering bulbs is doubly valuable for the brave field show of bloom, and for its generous supply of cut-flowers. Gladiolus flowers last longer when cut than most any other flowers, and develop in water to a greater perfection than if left on the plant.

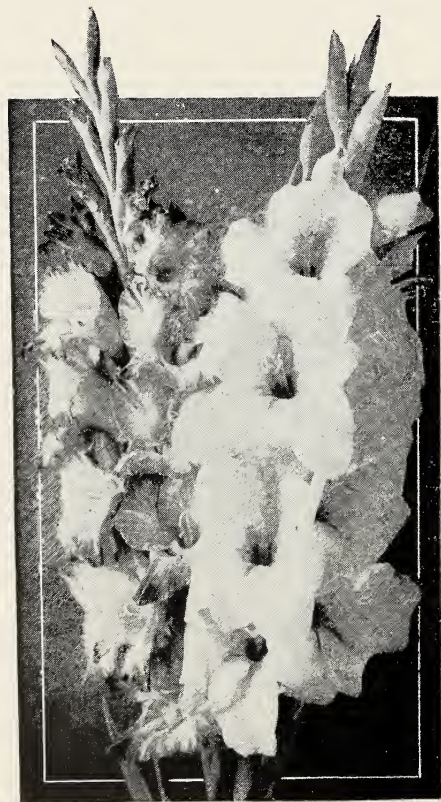
### CROCUS

They are among the earliest spring flowers and most effective when dotting the lawn without any fixed plan of arrangement. The bulbs can be set by lifting the sod with a knife or trowel, slipping the bulbs underneath and pressing the sod back into place, where they will remain and bloom year after year.

**NARCISSUS—Grandiflora**—Flowers pure snow-white; desirable for their beauty and fragrant, delicious odor. They force admirably and flower freely; grow in bowls with gravel and water, but are not hardy for outdoor culture. Mammoth bulbs. 15 centimeter.



Crocus



Gladiolus



## Hardy Climbing Vines

Vines are useful in many ways. They give quick results when planted on a new place, before tree and shrubs become established. For covering fences, rocks, walls, banks and trellises, they are peculiarly adapted. A porch without a vine is desolate and incomplete.

### AMPELOPSIS

**QUINQUEFOLIA** (American Ivy or Virginia Creeper)—A very rapid growing vine covered with heavy digitate leaves affording shade and of great beauty when changing to scarlet in Autumn.

**ENGLEMANI IVY**—Shorter jointed and having finer foliage than Quinquifolia. Clings to brick or stone. A good grower and hardy. The best for the North and Northwest.

### BITTERSWEET—*Celastrus Scandens*

A native climber, with handsome, glossy foliage and large clusters of beautiful orange-crimson fruits, retained all Winter. Very bright in effect and charming for Winter house decoration.

### CLEMATIS

Of all the vines used for either shade or decoration, none can compare with the Clematis in its many and various forms. As a climber for the veranda, a screen for fences, for pillars, along garden walks, for training on walls or arbors, in masses or rockwork, it has no rival among the strong growing, blossoming plants. Their delight is in rich soil and a sunny situation, and they are perfectly hardy. They should be well mulched with rotten manure in Winter.

### SMALL-FLOWERING CLEMATIS

**PANICULATA**—A great novelty from Japan. This variety of Clematis has proved to be one of the most desirable, useful and beautiful of hardy garden vines, a luxuriant grower, profuse bloomer, and possessing fine foliage.

### LARGE-FLOWERING CLEMATIS

**HENRYI**—Flowers creamy-white and very large; a fine bloomer.

**JACKMANI**—This variety is better known than any other, and still stands as one of the best. It is a strong grower, and produces a mass of intense violet-purple flowers four to six inches in diameter, from July until October.

### HONEYSUCKLE—*Lonicera*

**SCARLET TRUMPET HONEYSUCKLE** (*L. Sempervirens*)—One of the handsomest in cultivation; a strong, rapid grower; flowers a bright scarlet, not much odor.



Englemanni Ivy



Climbing Honeysuckle



Paniculata Clematis



Virginia Creeper



Jackmani Clematis

# Roses

**E**VERY home should have an abundance of roses, for there is no hardy plant that produces such a profusion of genuine loveliness and rewards the grower more liberally than does the rose. Of the hundreds of varieties, the kinds that we list are the hardiest and most vigorous, as well as the best bloomers for this territory.

## MISCELLANEOUS

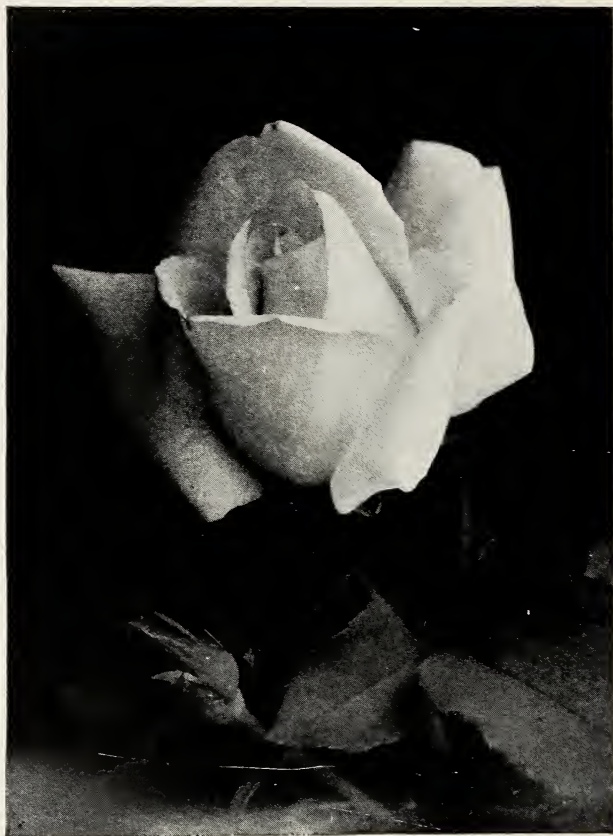
### FRAU KARL DRUSCHKI (Snow Queen)

—Pure paper-white, large and free flowering. A very handsome plant, with bright, heavy foliage and strong upright growth. The bloom is of perfect form, on fine long stems. The finest rose in color, form and general finish. If after each blooming period the branches are cut back, Frau Karl Druschki will bloom continuously throughout the season.

**PERSIAN YELLOW**—Flowers pure yellow of medium size; full, produced in greatest abundance quite early in the season. The leaves are small; the bush hardy and spreading. Fine for masses, hedges, borders, cemeteries, etc.



Harrison's Yellow



Amelle Gravereaux

**GRUSS AN TEPLITZ**—Dark rich crimson, passing to velvety fiery red. An exceptionally free bloomer and one of the brightest colored red Roses grown. The canes are strong and vigorous, producing blooms constantly from June till frost. An almost continuous bloomer.

**HARISON'S YELLOW**—Semi-double; bright yellow; showy and fine; blooms very early; one of the best of its color.

## ROSA HUGONIS

This species, from China, is unlike any other Rose. It is of shrub-like habit of growth and naturally forms symmetrical bushes about 6 feet high, and the same in diameter, and while not suited to plant in the Rose border, it is an invaluable subject when planted in connection with other shrubs or as single specimens in the garden.

Its delicate yellow single flowers are produced on long arching sprays early in May, every branch of the previous season's growth becomes lined on both sides to the very tips with these attractive flowers, and after it has finished flowering it remains an attractive decorative bush for the balance of the season; perfectly hardy.



## THE BEST CLIMBING ROSES

**DOROTHY PERKINS**—This is one of the new Rambler types; has the same strong habit of growth as the Crimson; flowers are borne in large clusters of 25 to 30 and are a beautiful shell pink; individual flowers are larger than those of Crimson Rambler.



Crimson Ramblers

**CRIMSON RAMBLER**—

The best-known and most popular of all the climbing roses. A rapid grower, making sometimes 10 to 15 feet in a season; flowers are borne in clusters of 15 to 25 perfectly shaped blossoms of a rich glowing crimson; when in full bloom the vine appears to be a perfect mat of rich red flowers; perfectly hardy everywhere.



Dorothy Perkins—Pink

**WHITE DOROTHY PERKINS**—A beautiful white flowered counterpart to the pink Dorothy Perkins; vines are a sheet of white during blooming season; are good white roses.

**YELLOW RAMBLER** — Same as the Pink, excepting flowers are a light yellow, changing to straw color; very fragrant.

## RUGOSA ROSES

**AMELIE GRAVEREAUX** (Pronounced Grave-ro).

Carminé red—full double—very fragrant. One of the new and one of the very choicest of the Rugosa Hybrids. The flowers open as a rich carminé red which turns to deep American Beauty color as they mature. The large flowers are unusually beautiful in the partially opened bud. The Amelie Graveraux has a delightful fragrance. It is a liberal bloomer, often carrying a dozen blooms within eight weeks after planting. It blooms liberally in June but even more so in August and September. This is a hardy and thrifty bush of beautiful foliage which makes a real attraction as a shrub. We consider this new creation a rose "par excellence" that is rapidly winning favor throughout the country.

**BELLE POITEVINE**—Double, rose pink.

**BLANC de COUBERT**—Very large, pure white, semi-double and borne in clusters; very fragrant. The bush is a strong, sturdy grower, has the Rugosa foliage, and produces an abundance of bloom.

**CONRAD F. MEYER**—Color silvery rose, fragrant, large, very double, and blooms all summer. The foliage does not show so much of the Rugosa type as Blanch de Coubert. Has stood on our grounds without winter protection, and came through in perfect condition. We consider it the best of its color.

**F. J. GROOTENDORST**—Bud small, flower open, double, borne in clusters on average length stems; very lasting; slight fragrance. Color bright red, edges of petals serrated like a carnation; disease resistant. Vigorous grower of bushy habit, bearing a profusion of bloom from June to October. Very hardy.

**HANSA**—Deep violet-red, double. Buds are borne in clusters and nearly all open at once. Has the true Rugosa foliage, and is one of the most valuable roses we have. It is absolutely hardy.

**ROSERIE de L'HAY**—Bright red flowers borne very freely. Its chief charm lies in its exquisite perfume.

**SARAH VAN FLEET** (H. R.)—Moderately to intensely fragrant; wild-rose-pink, fading lighter in strong sunlight, borne singly and several together. Foliage abundant normal green, leathery Rugosa type, resistant to disease; flowers abundantly in June and continues through summer with a good crop again in autumn.

**SIR THOMAS LIPTON**—The best pure white Rugosa Rose. Strong and vigorous; grows four feet high. Flowers perfectly double, pure snow white. Fragrant, borne on long stems continuously throughout the season. Absolutely hardy everywhere. Splendid for hedging, cemetery and park work.



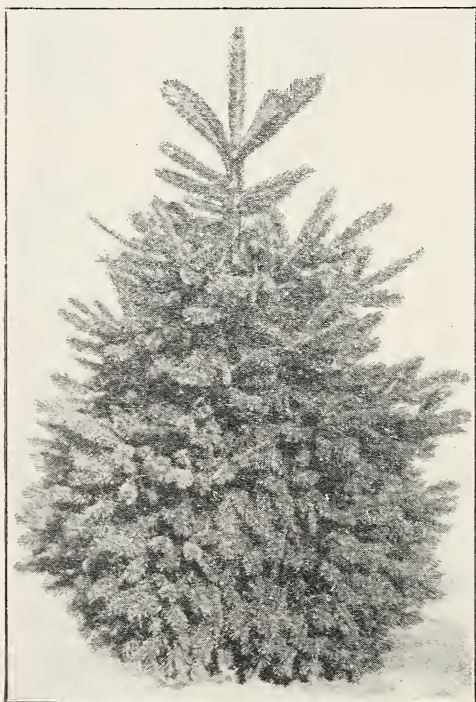
# Hardy Evergreens

**I**N HANDLING and planting evergreens never allow the roots to become dry for an instant. Their juices are resinous, and when once dry, water has no power to restore them; dip the roots in "grout" or very thin mud, and plant quickly; cover the roots with fresh soil and with a heavy piece of wood beat the earth solid over them. Fill up and pound again, and finish by bringing fresh loose earth about the tree with a hoe. No wind can now bend the tree about so as to break the tender rootlets as fast as formed.

Use Scotch Pine, White Spruce and Norway Spruce, for high screens, and Arbor Vitae or Red Cedar for low ones.

**ARBORVITAE (American)**—This plant is, all things considered, the finest evergreen for hedges. It is very hardy and easily transplanted, few plants failing if properly handled. It grows rapidly and with little care, or rather by easy management, it soon forms a most beautiful hedge, very dense and perfectly impervious to the sight. It is never planted to turn stock, but it forms a most desirable and ornamental screen to divide the lawn from other grounds.

**ARBOR VITAE (Pyramidalis)**—A superb, new and hardy sort, of very compact habit; much better than the Irish Juniper, and grown in a perfect column. Largely planted in cemeteries, owing to the small amount of space it occupies. This is perhaps the most valuable Arbor Vitae in cultivation.



Black Hills Spruce

**PINE, SCOTCH**—Is one of the most rapid growers while young, one of the best for shelter planting in the West. It will make the best windbreak in the least time of any; it is a very valuable species.



Arbor Vitae Used as a Hedge

**PINE, MUGHO (Mughus)**—Sm. A low spreading Pine and very useful in lawn planting. In foliage it is a true Pine with stout, bright green needles of medium length. Valuable for planting on rocky ground and hillsides.

**PINE, PONDEROSA (Bull Pine)**—This variety was first brought to attention in South Dakota, where it was found to be successful, and perfectly hardy. It forms a stout, spreading tree, with branches often pendulous. A rapid grower, very long needles on its branches, heavy and rough coated with bark. Foliage is a dark green.

**RED CEDAR**—Well known hardy tree, varies in habit from compact pyramidal types to low bushy trees. Needles which are sharp and dense range from bright green in spring to dark green in summer, with tips turning to pink or bronze color in winter. Can be trimmed to any shape or height and stands shearing well. Does best on dry soils and should have full sun. Attains height of 20 to 30 feet.



## EVERGREENS—(Continued)

**BLACK HILLS SPRUCE**—Most hardy of the spruces; compact well formed and bushy. Needles are dense and range from green to blue tint. Attains height of 25 to 40 feet and a spread of 10 to 12 feet. Excellent for backgrounds and borders. Should be planted where it will get sun at least part of the day.

**SPRUCE, COLORADO BLUE**—This species has been tested at various points on the prairies of the West and Northwest with perfect success, and during a temperature of 30 degrees below zero, in exposed situations, entirely uninjured. One of the hardiest evergreens and the most beautiful in color and outline. "This is the king of spruces, clothed in royal robes of silver and sapphire, a very Kohinoor among the gems of the Rockies."

**NORWAY SPRUCE**—A lofty, elegant tree of perfect pyramidal habit, exceedingly picturesque and beautiful. One of the best evergreens for windbreaks. Rapid grower, deep green color.

**COLORADO GREEN SPRUCE**—The original stock from which the Colorado Blue Spruce has developed. A vigorous grower of the same habits as the Blue species—broad based, distinct pyramidal form with light green needles densely set. Makes an ideal background for the blue variety.



**WHITE SPRUCE**—Perfectly hardy native of the north, attaining height of 25 to 50 feet and a spread of 12 to 15 feet. Foliage is light green with bluish tint. Ideal for tall backgrounds and thrives in most locations.

## Deciduous Trees

There is an untiring loveliness in trees as they continually change with the season. At the first breath of spring, the swelling buds open into dainty flowers, often inconspicuous, but none the less beautiful. Then follows the delicate tints of expanding leaves that deepen into the richness of mid-summer greens. The chill of autumn brings new beauty in the myriad of gorgeous hues that come almost overnight. Even in the bleak, cold days of winter there is beauty in bark and twig and form.

**BOX ELDER or ASH LEAVED MAPLE (A. Negundo)**—Large spreading tree of rapid growth, 70 feet high; foliage smaller than in other maples; very frequently planted for wind-breaks. Very hardy.

**GREEN ASH. Lg.**—This species is of the greatest value in the prairie states of the Northwest. Although not so tall a grower nor so rapid in growth, it is much hardier and better adapted to the extreme conditions of this section. It is valuable for street planting as a shade tree and for all kinds of prairie timber culture.



Green Ash



Box Elder





American Elm

**CATALPA**

**CATALPA SPECIOSA** — A variety which is said to have originated in the West; it is very hardy and a rapid grower and is being extensively planted for commercial purposes; has broad, deep green leaves and beautiful large blossoms, making it a highly ornamental tree for lawn or street. Valuable for planting in groves for growing poles, posts and railroad ties.

**ULM—Ulmus**

**AMERICAN WHITE ELM (U. Americana)**—A magnificent tree growing 80 to 100 feet high with drooping spreading branches; one of the grandest of our native trees; makes a beautiful lawn or street tree.

**MOLINE ELM**—Developed from a seedling found at Moline, Illinois. Has upright symmetrical growth, large leaves and is very rapid growing. Because of one central trunk it is not subject to splitting off of large branches. Is a very desirable boulevard tree.

**VASE ELM**—The trunk branches and grows upward in a most graceful vase-like form. This species is grafted on American Elm stock; is rapid growing and has in addition to these features the other fine qualities of the American Elm.



Moline Elms

**HACKBERRY**

Resembles Elm somewhat, foliage more pointed and a bright glossy green, bark thick and rough; a symmetrical grower; good street tree, drouth resistant.

**BUCKEYE**—(**Northern Aesculus Glabra**)—A hardy type of Ohio Buckeye grown from acclimated Minnesota seed. The only hardy Horse Chestnut.



Horse Chestnut

**CHINESE or SIBERIAN ELM (Ulmus Pumila)**—Rapid growing, drouth and alkali resistant tree which has proven hardy with us although subject to partial top-killing because of late ripening of the new wood. Dark green leaves, smaller than those of the American Elm, and branches grow densely tending to bush form unless trimmed. It is apparently free from insects and disease.

**LINDEN—Tilia**

**AMERICAN LINDEN or BASSWOOD (T. Americana)**—Grows about as fast as Green Ash, large size, forming a broad round top-head; leaves broadly oval, dark green above, light green underneath; flowers are creamy-white and fragrant; a splendid street or lawn tree.

**MAPLE—Acer**

**SCHWEDLER'S PURPLE MAPLE (A. Platanoides Schwedleri)**—A beautiful variety with very large bronze-red leaves and young shoots of the same color; a vigorous grower and a most ornamental tree.

**SILVER LEAVED or SOFT MAPLE (A. Dasycarpum)**—A rapid growing tree of large size, irregular rounded form; foliage bright green above and silver beneath; a favorite street and park tree.



**MAPLE, GINNALA**—A graceful, shrub like tree with handsome foliage which turns to bright red in autumn. One of the most beautiful of autumn coloring trees.

### ASH

**MOUNTAIN ASH**—*Sorbus Americana*—A compact oval-headed tree, with dark green, compound foliage and showy clusters of bright red berries. Somewhat hardier than the European Ash.

### POPLAR—Populus

**COTTONWOOD**—Has long been a popular tree in the western states. Its greatest value lies in its extreme hardiness and rapid growth. A well planted specimen makes a noble tree, its branches spreading widely.

**LOMBARDY POPLAR** (*P. nigra italica*).—In shape this is the exclamation mark among trees. Its towering spire has an individuality all its own. For tall screens and backgrounds, this tree is admirable.

**BOLLEANA POPLAR**—A tall, narrow topped tree with cottony leaves, introduced from Turkestan. Somewhat resembles the Lombardy Poplar. Foliage is glossy green above, and silvery beneath.

**SILVER POPLAR**—Foliage resembles that of the Silver Maple. In ornamental planting it is particularly useful on account of the striking foliage effect. The under side of the leaves are a silvery white, contrasting remarkably with the dark green of the upper surface. It should always be used in groups or with other shrubs—never singly.

### MULE POPLAR

**NORTHWEST POPLAR**—Native of North Dakota, hardy and drouth resistant; not as rapid growing as the Cottonwood but valuable in windbreaks and as specimens because of its regular form. Promises to be the most desirable poplar for planting in this section.



Black Walnut

**CANADIAN POPLAR** (*Canadensis*). Lg. This Poplar is related to the hardy Cottonwood—resembles it somewhat in its habit of growth. It is extremely hardy. It grows as far north as Edmonton in northern Alberta. The tree is especially adapted to severe and exposed localities, is more desirable than the Cottonwood because it does not shed cotton and is more shapely in its form and general growth.

### BLACK WALNUT—Juglans Nigra

This species is a common and stately forest tree in the middle and Western states; grows from forty to sixty feet high; has an open, spreading head and is rapid in growth; produces large crops of nuts with rough hard shell containing rich, oily kernel of fine flavor.

### BUTTERNUT

**WHITE WALNUT**—Very much resembles the Black Walnut. It is a moisture loving tree, and succeeds best on low, rich soils. The nut is of milder, and, many think, of better quality. A broad, open top tree, with light green compound foliage, and gray bark.

**AMERICAN WHITE BIRCH** (*B. populifolia*). Med. A small or medium sized, graceful tree. Thrives well in even poor and dry soils. The bark is a grayish white.

## Weeping Trees

### ASH

**WEeping MOUNTAIN ASH**—*Sorbus Pendula*—The best tree for the North of the extremely pendulous type. The fruit and flowers are similar to those of the American Mountain Ash. Its habit, however, is decidedly drooping, the branches taking an almost directly downward growth. Tree has a loose, umbrella-like appearance. It is not as regular in shape as the weeping willow, and is considered by many more ornamental on this account.

### BIRCH

**CUT LEAF WEeping** (*Betula Pendula Laciniata*). An elegant erect tree with slender drooping branches and fine cut leaves. White bark.



Cut Leaf Birch, Weeping



Niobe Willow

**NIOBE WEeping WILLOW**—A weeping form introduced from Europe by the South Dakota Experiment Station. It has graceful, drooping branches, and is of regular habit. The Station Bulletin says of it, "One of the most promising novelties of recent years. A beautiful tree with long pendulant, bright yellow branches and red twigs. Name Niobe in allusion to the Weeping Niobe of mythology."

Successful growers today are demanding trees that are raised on the high, open prairies. Trees grown in the moist lake regions southeast of here or in the sandbars of the Missouri river will not satisfy. We give you a tree that is raised near your home, under the same conditions, used to our short summers, hard winters, and drying winds. The word "hardy" simply means acclimated. You could afford to pay more for our trees but we do not ask it. We give you these trees for the same price that you would pay for a cheap tree grown farther south, which would dry out in a dry summer, freeze out in

**ELM**  
**CAMPERDOWN WEeping** (*Ulmus Montana Camperdown Pendula*).—Its vigorous irregular branches, which have a uniform weeping habit, overlap so regularly that a compact roof-like head is formed.

### WILLOW—Salix

**GOLDEN WILLOW** (*Aurea*). Lg. At the present time one of the most planted of all Willows and a very important tree, both from an economical and ornamental standpoint. It makes a round topped tree of symmetrical form. One of its strongest ornamental features is the bright, clear, golden yellow bark, which offers a pleasing contrast wherever it is used. Valuable for hedge and windbreak purposes.

**LAUREL LEAF or BAY LEAF WILLOW**. Sm. An ornamental variety of upright growth, forming a round head. Bark is brownish green, foliage is a deep shining green, closely resembling that of the Laurel. Thrives equally well on high or low ground. An especially desirable variety to plant near the water.

**WHITE or GRAY WILLOWS**—This is one of the best known and most valuable of the willows. Forms a large tree with short and thick trunk. The branches are yellowish brown and the leaves are an ashy gray and silky throughout, giving a white appearance to the whole tree. Has long been popular as a rapid growing ornamental tree for lawn and street planting in exposed locations. It is also much planted for wind breaks and prairie forestry.

a cold winter, and perhaps start up from the roots after you have nursed it two or three years.

If you want a cheap tree get one pulled from the sandbars of the Missouri river. They have one straight root running down into the sand. They have no fibrous roots as they have not been cultivated. They are soft for they have had plenty of water. When exposed to our drying prairie winds they either wither away or become scrubby. When you want a cheap horse you buy a broncho, but when you want a good horse you buy a standard breed that has been properly raised. Our prices save you money for our trees grow.

# Successful Planting, Pruning and Care

## CARE OF STOCK

The bundles should be opened immediately, the roots dipped in water, then heeled in moist ground so that the mellow earth will come in contact with the roots and thoroughly protect them from the air, having the earth tramped solid about them.

When ready to plant, take up only a few at a time, puddle the roots and do not allow them to lie exposed to the sun or air.

The ground should be carefully prepared by deep plowing and firming down with a disc and harrow.

## PLANTING

The holes for planting must be large enough to receive the roots freely, without cramping or bending them from their natural positions. All broken or mutilated portions of the roots must be cut off so as to leave the ends smooth and sound. All trees should be planted two or three inches deeper than they stood in the nursery row; pack the soil very firmly about the roots by tamping with the feet or post tamper, being careful not to bark or break the roots. Leave three inches of the surface soil loose to serve as a mulch. If the ground is very dry apply one to two pails of water before this soil mulch is in place, and after the water has soaked away it can then be placed over the moist soil.



### DISTANCES FOR PLANTING

This is a question that often arises for the salesmen to answer and the following table will serve as a comparative guide. It must be remembered, however, that it is only **comparative** and is based on the general distances required on the average loamy soil. The distances given in second column are those required for transplanted trees. Where seedlings are planted they must be placed much closer together; as they mature, the weaker ones can be cut out and the row evened up to the proper distance.

In planting trees for wind protection it is best to set two rows, having the trees alternate in the row, so that each tree will be opposite an open space in the next row.	Distance in feet for thick or solid hedge rows.	Distance in feet for open planting on lines and avenues.
Arbor Vitae, American.....	2 to 4	8 to 26
Ash, American.....	2 to 8	15 to 20
Barberry, Japanese.....	1 to 2	
Buckthorn.....	1 to 2½	
Caragana.....	1 to 2½	
Russian Olive.....	1 to 2½	
Cottonwood.....	2 to 6	25 to 35
Elm, American.....	2 to 6	15 to 20
Locust.....	2 to 6	15 to 20
Maple, Soft or Silver.....	2 to 8	15 to 20
Mulberry, Russian.....	2 to 6	20 to 30
Pine.....	3 to 8	15 to 20
Poplar.....	6 to 12	15 to 20
Red Cedar.....	2 to 3	10 to 15
Spruce.....	3 to 8	10 to 20
Willow.....	1 to 2	20 to 30
Walnut.....		20 to 30

### A RULE TO FIND THE NUMBER OF PLANTS REQUIRED FOR AN ACRE

The number of square feet in an acre is 43,560. Divide this amount by the number of square feet required for each plant. Thus, to find how many Currants are required for an acre planted 4 feet by 6 feet, 6 times 4 equals 24; 43,560 divided by 24 equals 1,815—the number required for an acre.

In the North, fruit trees do not grow to be as large as in the Southern and Eastern states and can be planted closer. We have adopted the distances here given:

Plum, Cherries—10 by 10 feet.  
 Apples—16 by 16 feet.  
 Strawberries—1 by 3½ feet.  
 Grapes—8 by 8 feet.  
 Gooseberries—4 by 6 feet.  
 Currants—4 by 6 feet.  
 Raspberries, red and black—3 by 6 feet.  
 Blackberries—4 by 6 feet.  
 Dewberries—3 by 6 feet.  
 Juneberries—4 by 6 feet.  
 Rhubarb—3 by 6 feet.  
 Asparagus—1 by 2½ feet.  
 200 feet on a side in a square acre.

Dig holes large enough to admit roots in natural position. Set several inches deeper than they stood in nursery row. Pack soil solid about roots.

### MULCHING

Unless thorough surface cultivation will be practiced during the summer a mulch should be applied. This may be a layer of coarse manure or vegetable matter around the trees three to six inches deep, and extending out from the trees three or five feet. Mulching protects the soil against the sun and drying winds; against alternate freezing and thawing, and provides some plant food.

### PRUNING

The pruning of trees should begin when they are planted. The transplanting of a tree marks a very critical point of its life history, and to neglect careful and proper methods of planting and pruning at that time is to invite disaster or, at least, unsatisfactory returns from one's efforts.

**APPLE**—Select from three or five of the branches to form the permanent head of the tree. These branches should be well distributed around the trunk, and at safe distance apart up and down the trunk. If two branches come out, one exactly opposite the other, forming a crotch, a split may occur at this weak point in later life, when the tree is full of fruit. Shorten these selected branches to about five buds, cutting the branches just above a bud that points outward. Remove all the other branches close to the trunk, leaving no stub longer than one-eighth to one-quarter inch. Also shortened back two-thirds the central leader of the tree, if one exists, else the tree assumes a too upright growth for best results in later life.

**CHERRY**—Five or six good limbs, well distributed around the trunk will be sufficient to form a well balanced top. The limbs left after pruning should not be cut back as severely as recommended for some other classes.

**PLUM**—Cut back all branches to about two or three buds. After the tree has grown for a year, remove all but four or five branches, but do not cut these back. These limbs will form the permanent framework for the top and subsequent growth may be pruned to meet the requirements or taste of the planter.

### SMALL FRUITS

**GOOSEBERRIES and CURRANTS**—Prepare the ground by deep plowing or spading. Cut the plants back fully one-half. Plant four feet apart both ways, same depth as plants stood in the nursery row, and firm soil well.

**BLACKBERRIES, RASPBERRIES, DEWBERRIES**—These should be set fairly deep, except one-year old raspberry plants, the new growth of which starts from the crown in the mass of hair-like roots; these should be planted shallow, with the crown not more than one inch below the surface. Too deep planting is often fatal to one-year-old raspberry plants. Plant in rows five or six feet apart, with plants three to four feet apart in the row. Firm the dirt around each plant. Keep surface of ground loose. Water in dry weather during growing season. Mulch in winter after the ground is frozen.

**STRAWBERRIES**—Plants should be set and cared for the same as tomato and cabbage plants. Plant in rows three to three and one-half feet apart and



Just right



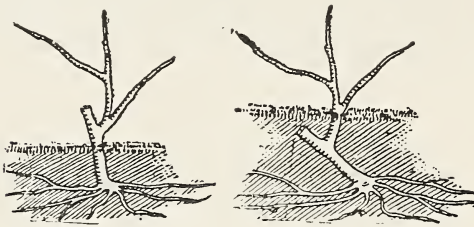
Too deep



Too shallow

twelve to fifteen inches in a row. The cheapest way to grow them is to plant in long rows and tend with a corn plow, using shields. Never allow rows to spread to more than eight or ten inches in width. Cover the plants late in the fall with one or two inches of prairie hay or stable litter (if free from weed seed). This covering should be removed from the plants in early spring and left between the rows until the fruit is picked then it should be removed from the patch and the rows cultivated the same as before.

**GRAPES**—These should be planted ten to twelve inches deep in holes large enough to admit roots without curling them, pressing soil solid about roots. Cut vines back to within three or four buds of the roots. Keep the ground clean by cultivating; if impossible to cultivate, mulch. Prune in February or early March, before there are any signs of new growth. Cut back to two buds as shown. The fruit of the grape is borne only on shoots of the current year's growth, which spring from the wood of last year's growth—hence the importance of annual and intelligent pruning.



Planted too shallow

Planted just right



**ASPARAGUS**—Prepare ground by deep plowing or spading. Set plants twelve to eighteen inches each way, three inches deep, with roots well spread out. Every fall mulch the bed well with manure.

**RHUBARB**—Prepare ground as for asparagus. Set the plants with crown or eye two inches under ground. Plant three feet apart each way. Mulch in winter. Give clean cultivation the same as for any other crop.

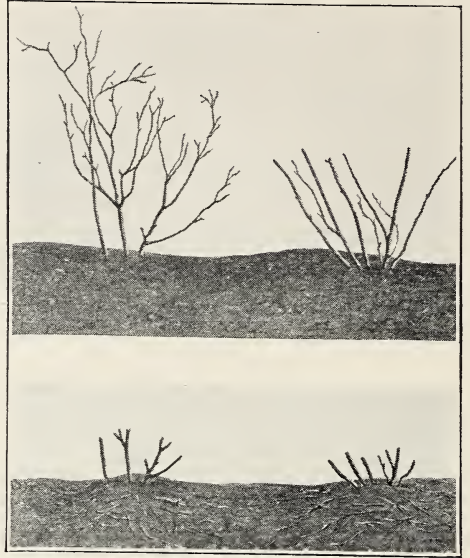
### SHRUBS

If planted in beds or groups the ground should be spaded deeply and well worked. If shrubs are set as individual specimens they should be planted the same as trees.

Set shrubs at the same depth as they stood in the nursery row, or with their crowns at about the surface of the ground. Water the plants well during the hot, dry weather and keep the ground well stirred around them. Most shrubs require judicious pruning at planting time, and subsequently. When shrubs are planted it is advisable to cut them back from one-half to two-thirds with few exceptions.

### ROSES

If roses are planted in the ordinary way with the tops left exposed to the sun and drying winds of the spring, they are almost sure to shrivel before time for them to grow, and thus the plants are greatly endangered, while if the following suggestions are followed, success is almost certain. The plants should be unpacked as soon as received from the nursery and planted, if possible. If unable to plant them immediately upon receiving them, they should be heeled-in deep (buried) in moist, loose earth, waiting time to plant. In planting they should be set two or three inches deeper than they stood in the nursery in well-prepared, damp soil, but not wet enough to be muddy. If the soil is dry it is well to plant the roses solidly, then wet thoroughly and after the water has soaked away, throw up a small mound of earth five or six inches high around the plant. Then cut off the branches about one



Rose Bushes Just Planted—Before and After Trimming

inch above the mound, leaving it this way for ten days or two weeks, or until the buds start and show a desire to grow, when the dirt mound can be raked down. Roses handled in this way hardly ever fail to make a good start and a very satisfactory growth.

### SHADE TREES

**ORNAMENTALS**—Dig holes large enough to accommodate all roots without bending or cramping. Fill the hole with good top dirt and firm it hard. When the hole is three-fourths full, allow a bucket or more of water to seep away around the roots, after which the hole may be entirely filled. It is well to mulch the tree immediately to prevent drying out. **Prune all limbs back to five or seven good buds**, even though the appearance of the tree is impaired by such treatment. Water trees during the summer months and give them plenty of attention until they have become well established. Large sizes of shade trees can often be staked to advantage until their roots have obtained good anchorage in the soil.

### EVERGREENS

These should be planted extremely solid, but be sure that all vacancies under the pronged roots are well filled with soil first, then press or tamp the soil so solid that the tree cannot be easily pulled up, leaving two inches of the soil loose to prevent baking and to take in the rainfall. Be careful **never to expose the roots to the sun and air** long enough to dry them in the least, and if necessary to water them, it is better to dig a hole by the side of the tree one foot deep and water them through the holes. This applies to the watering of all trees. Better to water two or three pitfalls at a time in seven or eight days, as needed, than to pour water on the surface, which often does more harm than good, by crusting the surface and attracting the roots upward for moisture. Instead of downward. Mulch with old hay or chaff, throw a little soil on the mulching and it will look better and will be more effective. Evergreens should be watered during a drought in mid-summer or fall as well as spring. The ground should be filled with water at the approach of winter and then mulched. They do not need the above care after the first year. After **planting** protect evergreens in yard by placing a screen about each to keep the dogs away.

### PEONIES

Should be set with the crown two to three inches below the surface of the ground. Plant two to two and one-half feet apart. Mulch heavily after the ground is frozen and remove mulch in the spring.



# Spraying

THERE are four distinct types of troubles to combat, ie: chewing insects, sucking insects, scale insects and fungous diseases. Chewing insects are controlled with a stomach poison, some form of arsenic (lead arsenate), sucking insects, (lice or aphids) by body contact poison, (nicotine) or miscible oil (kerosene emulsion), and fungous diseases by lime-sulphur solution or Bordeaux mixture. Be sure you know what you are spraying for since arsenate of lead will not control lice or aphids, nor will nicotine or kerosene emulsion control apple worms and neither of these will have any effect on apple scab or other fungous diseases. Lime-sulphur is used as a dormant spray for scale insects and also for fungous. In spraying the apple, keep in mind the two main apple troubles in the Central West, codling moth and apple scab, and in controlling these most other troubles are incidentally controlled. Lead arsenate and lime-sulphur or Bordeaux mixture are the sprays to use.

## SPRAYING MATERIALS

The most common and best form of arsenic used is "arsenate of lead." This may be secured from drug stores and seed and garden supply houses. Thoroughly dissolve three pounds of paste arsenate of lead or 1½ pounds of dry arsenate of lead in a small amount of water in a pail and add to fifty gallons of water or other spraying solution.

Bordeaux mixture is prepared by dissolving four pounds of copper-sulphate (bluestone), in a small amount of water and diluting to twenty-five gallons; slacking five to six pounds of good lime and adding water to make twenty-five gallons. These solutions should then be combined by pouring or dipping simultaneously from each into a third vessel or spray tank.

The commercial lime-sulphur is used almost exclusively by many fruit growers. This may be obtained from same sources as arsenate of lead or direct from manufacturers. To combine the fungus spray and the insect spray simply add the dissolved poisons to the fungus solutions.

Kerosene in its natural, undiluted state, is fatal to all insect and vegetable life, but properly prepared may be used safely and with much benefit: Dissolve a bar of Ivory soap in one gallon of hot water, then add two gallons of kerosene and churn it vigorously until cool. If made right it is then like cream, and will keep indefinitely. For general use take one part of the mixture to ten parts water and use as a spray. Will be found very valuable in getting rid of aphids, mealy bugs, red spider, etc. May be used against any soft-shelled insect.

## WHEN AND HOW TO SPRAY

### GRAPE

What to Spray For	Treatment	When to Spray	Remarks
Anthraco nose Black Rot Mildews	Bordeaux mixture	(1) Just before buds open. (2) After blossoms have fallen. Two or three others at 10-14 day intervals.	Careful winter pruning and disposal of diseased wood with application of lime-sulphur (winter strength) in dormant season aids in anthracnose control.
Berry Moth Leaf Hopper	Bordeaux with 2 lbs. Arsenate of Lead.	Follow program recommended above when these insects are prevalent.	Dusting with fine sulphur is recommended for some vines of European origin for mildew control.

### BLACKBERRY, RASPBERRY AND DEWBERRY

Anthraco nose	Lime-Sulphur as directed.	(1) In spring before growth starts (2½ gal. in 50). (2) When new shoots are 6-8 inches high (1½ gal. in 50). (3) Just before blooming period. Dilute as in (2).	
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### CURRENT AND GOOSEBERRY

Leaf Spot Anthraco nose	Bordeaux	Beginning as soon as the leaves are opened make five to seven applications at two-week intervals.	
Current Worm	Arsenate of Lead, 2 lbs. to 50 gals. water.	At the first appearance of the worms. If there are two broods repeat spray.	Dry hellebore may be dusted on, if near picking time.
Current Plant Louse	Nicotine sulphate, 1 to 800 of water.	Soon after eggs hatch in spring (soon after the leaves open).	Thoroughness necessary, hitting all leaves from beneath.

### STRAWBERRY

What to Spray for	Treatment	When to Spray	Remarks
Leaf Spot	Bordeaux	Before blossoms open. Additional applications if spot appears.	Renew beds frequently. May mow off and burn foliage after berries are picked.

### APPLE

Scale Insects	Lime-Sulphur, 1 to 8; Scalecide, Miscible Oils	In dormant season; when trees are leafless.	Protect men and animals at work from caustic action of Lime-sulphur on the skin.
Apple Aphids (lice)	Nicotine, 1 to 800, added to lime-sulphur, 1 to 40.	In spring when buds are bursting showing green tips.	Of no use after leaves are curled. Use high pressure.
Scab Black Rot Bud Moth Cankerworm Tent Caterpillar	Lime-Sulphur, 1 to 40, with 2 lbs. Arsenate of Lead.	When flower buds show pink, but before any have opened. (Other sprays as recommended for codling moth, below, will incidentally control troubles in this group.)	In severe cases of cankerworm use Paris Green 4 oz. in fifty gallons of water with twice as much slaked lime.
Codling Moth	Lime-Sulphur, 1 to 40, with 2 lbs. Arsenate of Lead.  Arsenate of Lead, 2 lbs. to 50 gals. water.	(1) When most of the petals have fallen (calyx spray). (2) Approximately three weeks after the bloom. (3) Approximately ten weeks after the bloom. (4) Fifteen to seventeen weeks after the bloom.	After weather becomes hot (from about July 1) discontinue lime-sulphur and use Bordeaux with 2 lbs. Arsenate of Lead.  Necessary in South where there may be three broods in one season.

Blotch Curculio	Lime-Sulphur, 1 to 40, with 2 lbs. Arsenate of Lead.	(1) As in (2) under codling moth (above) except two weeks after bloom in south. (2) Approximately five weeks after the fall of the bloom. (3) As in (3) under codling moth (above)	Clean orcharding assists in curculio control. Spraying not always wholly effective.
Sooty Blotch Fly Speck	Bordeaux, 4 - 4 - 50, with 2 lbs. Arsenate of Lead.	Usually checked as incidental results of applications recommended above.	Arsenate of Lead may be omitted if no curculio is present.
Bitter Rot	Bordeaux	Where disease is looked for begin spraying in early summer, making applications often enough to keep fruit coated.	More common in regions where air and water drainage is poor.
Apple Rust or Cedar Rust	Spraying not effective	Remove cedar trees nearby.	The rust cannot live without cedars on which it spends part of the year.
Blight		See under Pear, Fire Blight.	

## PLUM

San Jose Scale European Fruit Scale	Lime-Sulphur, 1 to 8	When tree is dormant.	
Curculio Brown Rot Leaf Spot	Lime-Sulphur, 1 to 50, with 2 lbs. Arsenate of Lead.	Similar to cherry, which see.	Brown rot spreads very rapidly in warm, moist weather and can be controlled only if fruit is kept coated.

## PEAR

Fire Blight	Spraying ineffective	In some cases where particular care is taken, prompt and severe pruning at the first sign of blight, disinfecting tools and wounds with corrosive sublimate solution, may check its spread to some extent.	
Scale Insects Blister Mite Pear Psylla	Lime-Sulphur, 1 to 8; Scalecide. Miscible Oils.	In dormant season, preferably early spring	Scrape dormant trees and burn all orchard trash to aid in psylla control.

Practically all the other common diseases and insects on the apple are also found on the pear to some extent. See methods of control under apple (above).

## CHERRY

Curculio Brown Rot Leaf Spot Shot Hole Fungus	Lime-Sulphur, 1 to 50, with 2 lbs. Arsenate of Lead.	(1) Just before buds open. (2) Immediately after blossoms fall. (3) About ten days after (2). (4) Additional sprays if necessary at two-week intervals.	In some localities it may be safer to dilute the lime-sulphur somewhat preventing foliage injury.
Cherry Aphid	Nicotine sulphate, 1 800.	When aphids first appear before they have caused the leaves to curl.	Be careful to cover underside of leaves. Use high pressure and soap.
Cherry Slug	Arsenate of Lead, 2 lbs. to 50 gals. water.	On first appearance of insects.	

## ROSES, FLOWERS AND VINE PLANTS

Slugs (small green worms on under side of rose leaves) Aphids (plant lice)	$\frac{3}{4}$ pint "Black Leaf 40," 4 lbs. soap in 100 gals. water.	Spring and Summer	Spray whole plant thoroughly, especially under side of leaves.
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## SHADE TREES

Caterpillars Measuring Worms Canker Worms	3 lbs. Arsenate of Lead to 97 gals. water.	Spring and Summer	
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